

THE BOWER MANUSCRIPT.

FACSIMILE LEAVES, NAGARI TRANSCRIPT, ROMANISED
TRANSLITERATION AND ENGLISH
TRANSLATION WITH NOTES,

EDITED BY

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PRINCIPAL, CALCUTTA MADRASAH.



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LIST OF ABBREVIATIONS.

AH.	=	Ashtāṅga Hṛidaya, ed. A. M. Kunte, 2nd edition, 1891.
AK.	=	Amara Kôsha, ed. V. Jhalakikar and R. G. Bhandarkar, Bombay, 1896.
AS.	=	Ashtāṅga Saṁgraha, ed. Ganeśa Tarte, Bombay, 1888.
BhP.	=	Bhâva Prakâśa, ed. Jîvânanda Vidyâsâgara, Calcutta, 1875.
BhV.	=	Bhaishajya Vijñâna.
Ch.	=	Charaka Saṁhitâ, ed. Jîvânanda Vidyâsâgara, 2nd edition, 1896. Ch. (G.)=ed. Gangâdhar.
Chd.	=	Chakradatta, ed. Pyari Mohan Sengupta, Calcutta, 1295.
DhN.	=	Dhanvantari Nighaṇṭu, Ânandâśrama edition, 1896 (see RN.)
HS.	=	Hârîta Saṁhitâ, ed. Binod Lal Sen Gupta.
Ind. Ant.	=	Indian Antiquary.
Journal ASB.	=	Journal of the Asiatic Society of Bengal.
Journal GOS.	=	Journal of the German Oriental Society.
KS.	=	Kaliyâṇa Saṁgraha, Dr. P. Cordier's Manuscript.
M.	=	Muktâvalî (Âyurvêdîya Dravya-guṇa Abhidhâna), ed. Kâlî Prasanna Viṭasarkâr, Calcutta, Saka 1817.
Med. Dict.	=	Vaidyaka Śabda Sindhu, a Lexicon of Hindu Medical Terms, by Uméśa Chandra Gupta Kaviratna, Calcutta, 1894.
Mat. Med.	=	The Materia Medica of the Hindus, by Uday Chand Dutt. Revised edition, Calcutta, 1900.
MN.	=	Mâdhava Nidâna, ed. Jîvânanda Vidyâsâgara, 3rd ed., 1901.
Nid.	=	Nidâna, ed. Uday Chand Dutt, Calcutta, 1880.
Pet. Dict.	=	Smaller St. Petersburg Dictionary, by Otto Bôhtlingk, 1879.
Phar. Ind.	=	Pharmacographia Indica by Dr. William Dymock, 1890.
RN.	=	Râja Nighaṇṭu, Ânandâśrama ed., 1896. (See DhN.)
Rec. Dec.	=	Récents Découvertes de MSS. Médicaux Sanscrits, dans l' Inde, by Dr. P. Cordier.
S.	=	Suśruta, ed. Jîvânanda Vidyâsâgara, 3rd ed., 1889.
Śâ.	=	Śârṅgadhara Saṁgraha, ed. Pyari Mohan Sengupta, Calcutta, 1296.
SY.	=	Siddha Yôga or Vṛinda Mâdhava, Ânandâśrama ed., No. 27, Poona, 1894.
V.	=	Vangasêna, ed. Nanda Kumar Goswami, Calcutta, 1889.
Watt	=	Dr. Watt's Economic Products of India, Calcutta, 1883.
Wise	=	Commentary on the Hindu System of Medicine, by Dr. Wise, New issue, London, 1860.

THE BOWER MANUSCRIPT.
Part VII.—Leaf I.

Plate LIII.

Reverse.

- Reverse.
1. □□□□□□धुङ्गाराजयोएतर्हि हृदय□□□□□□□□□□, इति, मिति, तिलि, मिलि, मिति, मिति
2. □दुंघ, तुव, सुचचिरि कसिया, भिसम डे, नमीबुत्तानां चिकीर्याप्राप्तमूलै, इतिहाराःलोहितमूलै
3. □उष, अंध, कुडि, कुनडि, नडि, कुजनडि विष्ककुंजनडि, अष्टकवन्तायांवर्षेतु देवीनवमासादग्रमा
4. ~ सीति, दल्लिमिलि, किलिमिलि, के तु मूलै,, दुदुम, सुदुमडे, दलिमे, संतुपडे, वुसडे, वुसडे
5. घुसर, एनवस्तुकी, नकालि, नयीलिमे, न रखर, मखिलि, इतिसज्जले, तुंव, तुवं, धनडे, प्रसाडे, अ
6. णणडे, वस तुदेवी नवी दकीन, सत्तशुत्तीसमतेण, नारायणे, पारायणे □□□□□□□□
7. □लिमे, सिद्धंतुमंचपदास्त्राहा ॥ इदंतदातनममासायुणी□□□□□□□□□□

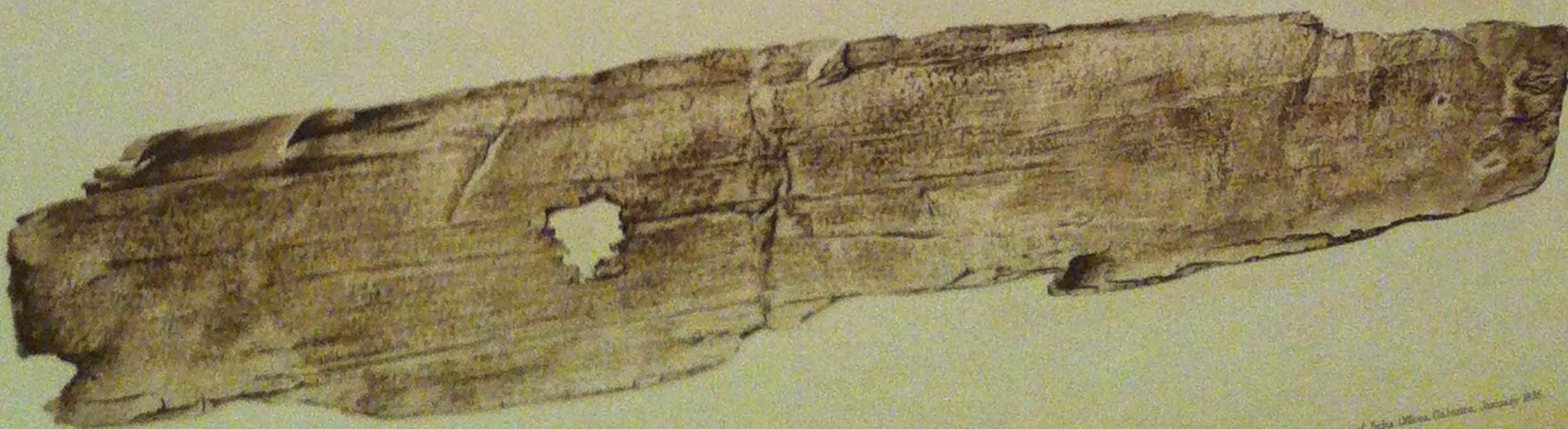
The Bower Manuscript.

Part VII Leaf 1

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Reveroe.



ORIGINAL FILE

Survey of India Office Calcutta January 1946

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Fig. 2.



Sketch of the ruined stûpa at Qumturâ.

That account, in Vol. V., pp. 254 ff., was

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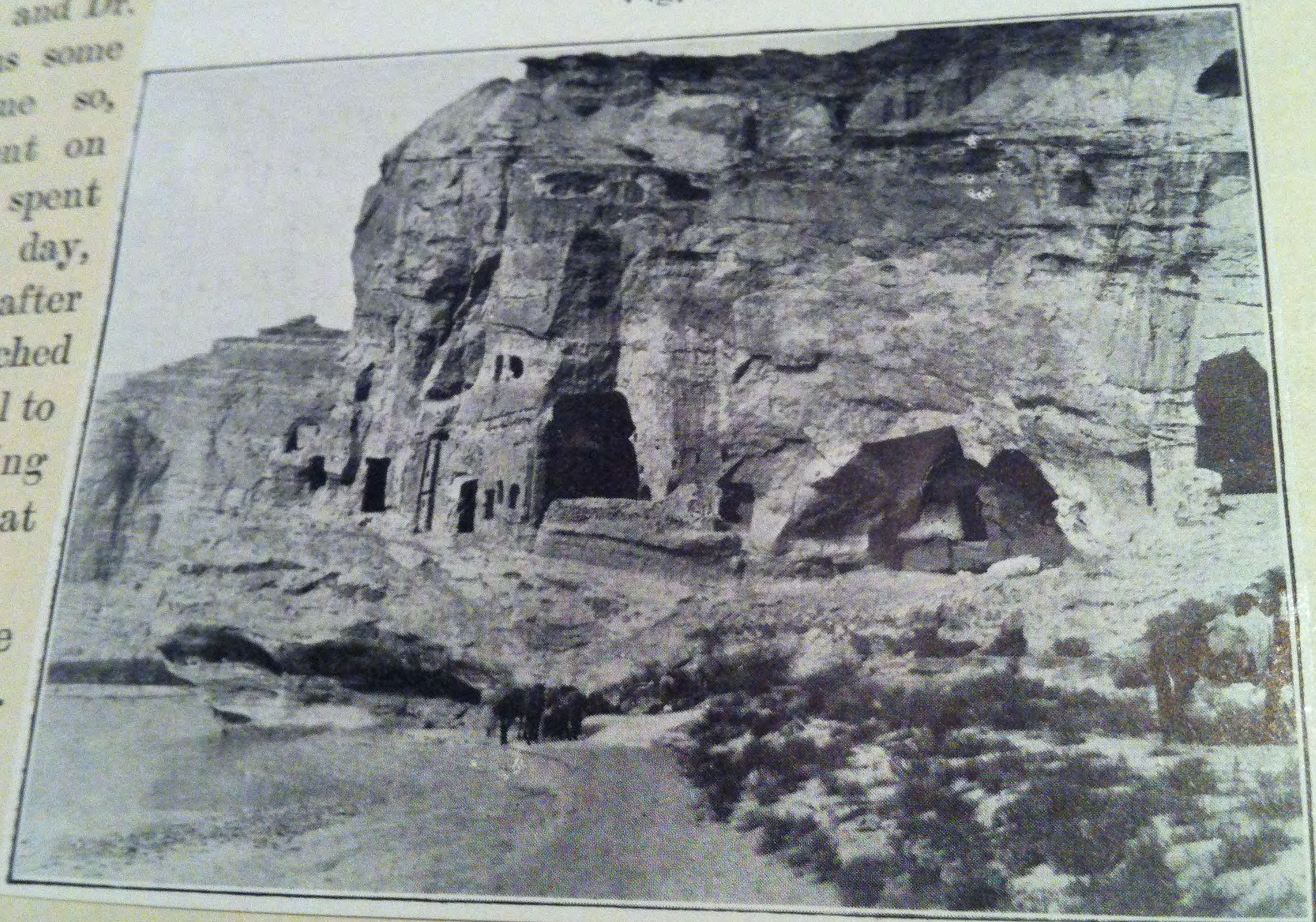
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Fig. 3.



View of a portion of the Ming-oï of Qum Turâ.

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View of a portion of the Ming-oï of Qum Turâ.

Bower in the rec

Fig. 5.



view of stupa at Subashi.

INTRODUCTION.

CHAPTER I.—THE DISCOVERY OF THE BOWER MANUSCRIPT: ITS DATE, LOCALITY, CIRCUMSTANCES, IMPORTANCE, ETC.

THE Bower Manuscript, which is named after its discoverer, Lieutenant (now Major-General) H. Bower, C.B., fell into the hands of that officer, early in the year 1890, in Kuchar, where he had gone, on a confidential mission from the Government of India, in quest of the murderer of Dalglish.¹

Kuchar, or Kuchâ,² situated about 41° 42' 50" N. Lat., and 80° 33' 50" E. Long., is the name of one of the principal oases and settlements of Eastern Turkestan, on the great caravan route to China, which skirts the foot of the Tian Shan Range of mountains on the northern edge of the Takla Makan desert.

On his return to India, Lieutenant Bower took the manuscript to Simla, whence in September 1890 he forwarded it to Colonel (now Major-General) J. Waterhouse, who was then the President of the Asiatic Society of Bengal. By him it was exhibited to the Society at their monthly meeting on the 5th November 1890, when also a short note (see below, No. i. p. iv) from Lieutenant Bower, dated the 30th September 1890, was read explaining the circumstances of the discovery. Some attempts were made after the meeting to decipher the manuscript, but they proved unsuccessful.³ At the time I was absent on furlough to Europe. It was on my return voyage to India that I received the first news of the discovery through a copy of the *Bombay Gazette* which fell into my hands at Aden. By a lucky chance, Major (now Major-General) W. B. Cumberland whose companion Lieutenant Bower had been during the earlier part of his travels, happened to be a fellow passenger on the steamer, and furnished me with corroborative information. On reaching Calcutta in February 1891, being then the Philological Secretary of the Asiatic Society of Bengal, I at once claimed the manuscript from Colonel Waterhouse, who most readily made it over to me. At the April meeting of that year, I was able to communicate to the Society the first decipherment of the manuscript which was immediately published in its *Proceedings* (April, 1891), pp. 54—65.⁴

¹ See the *Geographical Journal* of the Royal Geographical Society, Vol. V (1895), p. 240.

² The spelling *Kuchar* represents the local pronunciation of the name, see M. A. Barth in *Comptes Rendus* of the Académie des Inscriptions & Belles Lettres, 1907, p. 21. The spelling *Kuchâ*, or *Kucha*, (Chinese *K'ütsé*), as Dr. A. von Le Coq informs me (letter of 24-10-1909), occurs on coins and public documents. It is used, *e. g.*, in Dr. M. A. Stein's *Ancient Khotan*, Vol. I, p. 8, *et passim*, also in M. Chavannes' *Documents sur les Turcs Occidentaux*, p. 8, *et passim*. The latter work may be consulted on the ancient history of Kuchar. It is one of the four territories, or so-called "Garrisons," the other three being Kâshgar, Khotan, and Karashahr, which anciently constituted

Eastern Turkestan.—The latitude and longitude of Kuchar above given, are those which have lately been determined by Dr. Vaillant of the French Expedition with a possible slight error of 300 or 400 metres in latitude, and of about 1,000 metres in longitude, as communicated to me by him in his letter of the 5th January 1910. See also his article in the *L'année Cartographique*, October, 1910.

³ See *Proceedings*, Asiatic Society of Bengal, 1890, p. 222.

⁴ The whole story of the discovery and decipherment of the Bower Manuscript is reviewed in Sir Alfred Croft's Presidential address to the Asiatic Society of Bengal in their *Proceedings* for 1892, pp. 61-63. See also Sir Charles Elliott's Presidential Address in the *Proceedings* for 1894, pp. 31-34.

It was the discovery of the Bower Manuscript and its publication in Calcutta which started the whole modern movement of the archæological exploration of Eastern Turkestan.⁵ The late Hofrat Professor G. Bühler, having seen the report of the discovery in the *Proceedings* of the Asiatic Society of Bengal, at once announced it in an early issue of the *Vienna Oriental Journal* for 1891, p. 103. The Russian Archæological Society, having thus their attention attracted, addressed, in November 1891, a request to Mr. Petrovski, the Russian Consul General in Kâshgar, to endeavour to collect similar manuscript treasures.⁶ In response to it the Petrovski Collection went to the Imperial Library in St. Petersburg, in the autumn and winter of 1892-3, of which Professor Serge d'Oldenburg published a report and specimens in the *Transactions* of the Imperial Russian Archæological Society, Vol. VIII, for 1893-4, pp. 47 ff. In the same year, 1892, the Weber Collection of manuscripts was acquired by the Rev. F. Weber, Moravian Missionary in Leh, whose curiosity had been aroused through a meeting with Lieutenant Bower on the latter's return journey to India (see below No. iv, p. vi). This acquisition was at once transmitted to me, and a report and specimens were published by me in the *Journal* of the Asiatic Society of Bengal, Vol. LXII of 1893, pp. 1 ff.⁷ In the following year, 1893, on my motion, the Government of India issued instructions to their Political Agents in Kashmir, Ladak, and Kâshgar, to make enquiries for ancient manuscripts, and secure all that might come in their way.⁸ It was in pursuance of these instructions that the "three Further Collections" of manuscripts came into my hands, of which a report and specimens were published by me in the *Journal* of the Asiatic Society of Bengal, Vol. LXVI, of 1897, pp. 213 ff.⁹ The most important, in the present connection, of these three collections are the Macartney manuscripts, so named after Mr. G. Macartney, the British Consul in Kâshgar, who secured them in 1895.¹⁰

The direct result of these discoveries of ancient manuscripts was the inception of the first expedition of Dr. M. A. Stein into Eastern (or Chinese) Turkestan in 1900-1901, of which a report was published by him, in 1902, in his *Ancient Khotan* in two volumes.¹¹ It is true that there had been numerous expeditions into that country in earlier years, such, *e.g.*, as the Russian expedition of General Prejevalski in 1878 and 1885, the British expedition of Major (now Lieut.-Colonel) Sir Francis E. Younghusband, K.C.I.E., in 1887-90, the French expedition of M. Dutreuil de Rhins in 1891-2, and the Swedish expedition of Dr. (now Sir) Sven Hedin K.C.I.E. in 1894-7,¹² but none of these was undertaken with the object of archæological exploration. Their main object was scientific, *i.e.*, geographical, geological, zoological, and the like, and any antiquities which they

⁵ See, *e.g.*, Bühler in the *Vienna Oriental Journal*, Vol. VII (1893), p. 26; Dr. Stein in *Ancient Khotan*, Introd. p. v; M. Pelliot, in *Comptes Rendus des Séances*, 1907, p. 166, also *infra*, No. x, p. ix; Professor S. d'Oldenburg, in the *Journal* of the Imperial Russian Archæological Society, Vol. VIII, 1893-4.

⁶ See *Transactions* of the Imperial Russian Archæological Society (1892), Vol. VII., pp. 81-2.

⁷ The Weber Manuscripts, which were subsequently purchased by me from Mr. Weber (*Journal*, As. Soc. Beng., Vol. LXVI., 1897, p. 239, footnote) passed, in 1902, into the possession of the Bodleian Library in Oxford; see their Catalogue, Vol. II., p. 111, No. 1091.

⁸ For particulars, see my *Report on the British Col-*

lection of Central Asian Antiquities, Part I., introd., p. ii; also *Proceedings*, Asiatic Society of Bengal, 1898, p. 65.

⁹ See also my *Report on the British Collection of Central Asian Antiquities*, Part II., being an Extra Number to the *Journal*, Asiatic Society of Bengal, Vol. LXX., 1901.

¹⁰ Since 1902 they are in the possession of the British Museum in London.

¹¹ On its inception, see Introd., pp. v, vi. The expedition started from Kashmir on the 31st May 1900, and returned to London on the 2nd July 1901.

¹² For two fuller, though still not quite complete lists of such expeditions, see the *Geographical Journal*, RGS., for 1893, p. 57, and the *Journal*, RAS., for 1909, p. 299.

brought home had been gathered, as it were, accidentally and by the way. The first expedition to Eastern Turkestan which was undertaken avowedly for the purpose of exploring the country archæologically, and excavating ancient sites, was the Russian of M. D. Klementz in 1898.¹³ As in the case of the expedition of Dr. Stein, it owed its inception directly to the stimulus imparted originally by the discovery of the Bower Manuscript. A series of archæological expeditions now followed in rapid succession. It comprised the first German expedition, led by Professor Grünwedel, in 1902-3; a Japanese expedition, in 1902-3, under Count Otani;¹⁴ the second German (or first Prussian) expedition, under Dr. A. von LeCoq, in 1904-7; and the second Prussian expedition led again by Professor Grünwedel, in 1905-7. These were followed, in 1906-8, by the second British expedition of Dr. Stein, which was extraordinarily successful, and fruitful of archæological results, and of which a preliminary account was published in the *Geographical Journal* (for July and September) 1909. The last of the series was the French expedition, under M. Paul Pelliot in 1907, which has recently (autumn 1909) returned to Europe. As it made a particular point of thoroughly exploring the district of Kuchar, where the Bower Manuscript was found, its full and final report when it appears may be hoped to set at rest any still remaining doubts regarding the exact locality and time of its discovery.¹⁵

In the meantime the publication of the Bower Manuscript steadily pursued its course. The proposal to prepare a complete edition of its text, illustrated with facsimile Plates, and accompanied by an annotated English Translation, was accorded, in 1892, the sanction of the Government of India, through the cordial support of Sir Charles Elliott, the then Lieutenant-Governor of Bengal. The First Part of the edition appeared in 1893; the Second Part (in two fasciculi) in 1894-5, and the remaining Parts III to VII in 1897. This completed the edition of the text and translation. After an interruption of several years, caused by my retirement from India and engagement in other time-absorbing work on subsequent finds of ancient Central Asian Manuscripts, the Sanskrit Index, being a complete vocabulary of the Bower Manuscript, was published in 1908, and a Revised Translation of its medical portions, in Parts I, II and III, in 1909. The Introduction, benefiting by the long delay and the attendant material increase of information, now brings the laborious work of the edition to its long-desired completion.

The Bower Manuscript itself, which till the completion of the edition of the text in 1897 had remained in the hands of the editor, was returned, in April 1898, to its owner, Colonel Bower. By him it was taken to England, where it was finally purchased, in 1898, by its present possessor, the Bodleian Library in Oxford.¹⁶

It remains to determine, so far as it is possible with the evidence at present available, the exact locality and the exact time of the discovery of the Bower Manuscript.

¹³ A report was published in the transactions of the Imp. Russian Archæol. Soc., Vol. XIII. of 1899; transl. into German by O. v. Haller.

¹⁴ A summary report appeared in the *Century Magazine* for October, 1906.

¹⁵ A preliminary report, read in the séance of the French Academy, on the 22nd of March 1907, is referred to in the

sequel (No. x, p. viii). The preliminary sketch map of the Kuchar district, which illustrates this chapter, was, in response to a request from me, most kindly prepared by Dr. Vaillant, who had accompanied M. Pelliot on his expedition.

¹⁶ In the Second Part (1905) of the Library Catalogue it is No. 1090, p. 110.

(i) The earliest information on the subject is contained in the note of Lieutenant Bower, which accompanied his transmission of the manuscript to Colonel Waterhouse, and which is published in the *Proceedings* of the Asiatic Society of Bengal for 1890, p. 221. It is dated from Simla, the 30th September 1890, and runs as follows:—

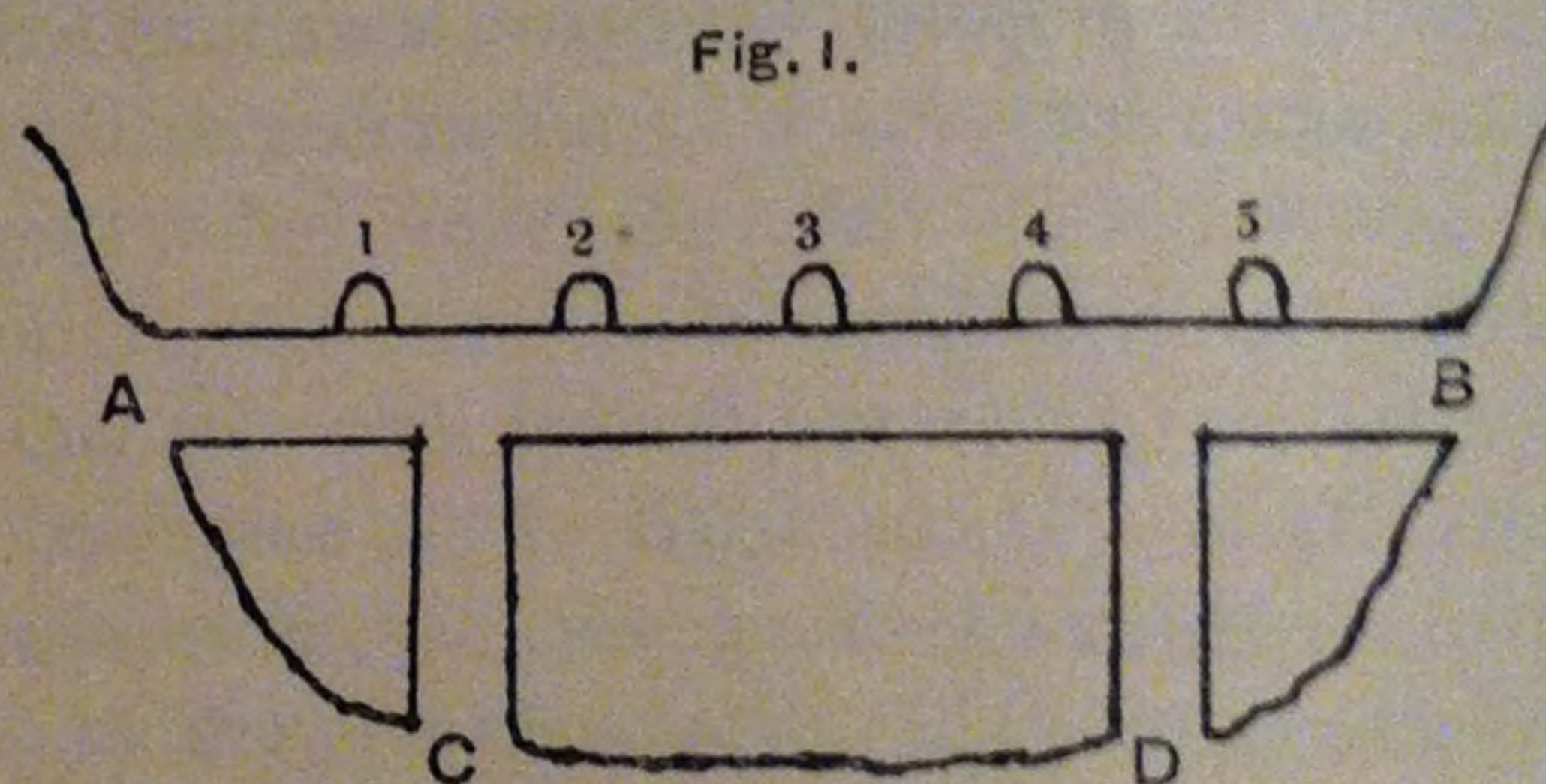
"While at Kuchar a man offered to show me a subterranean town, provided I would go there in the middle of the night, as he was frightened of getting into trouble with the Chinese, if it was known that he had taken an European there. I readily agreed, and we started off about midnight. The same man procured me a packet of old manuscripts written on birch bark. They had been dug out of the foot of one of the curious old erections, of which several are to be found in the Kuchar district. There is also one on the north bank of the river at Kâshgar. The one out of which the manuscripts were procured is just outside the subterranean city."

"These erections are generally about 50 or 60 feet high, broad in proportion, and resembling somewhat in shape a large cottage loaf. They are solid, and . . . are principally composed of sun-dried bricks, with layers of beams now crumbling away. Judging from the weather-beaten appearance they possess, and taking into consideration the fact that in Turkestan the rain and snowfall is almost nominal, they must be very ancient indeed" . . .

"The subterranean ruins of Ming-oi, to which my guide had promised to take me are situated about 16 miles from Kuchar on the banks of the Shâhyâr river, and are said to be the remains of Afrasiab's capital. The town must have been of considerable extent, but has been considerably reduced owing to the action of the river. On the cliffs of the left bank high up in midair may be seen the remains of the houses still hanging on the face of the cliffs."

"One of the houses I entered was shaped as shown in the sketch (Fig. 1). A—B represents a tunnel, 6 yards by 4 yards, through a tongue-shaped hill. C and D are entrances, the hill being almost perpendicular at A and B. 1, 2, 3, 4, 5 are cells, roughly 6 feet by 6 feet. The walls have been plastered, and what appear to be the remains of geometrical patterns can be made out.

"I was told the remains of other similar towns may be seen in the district.¹⁷ In Yaqub Beg's time a lot of gold was dug up" . . .



Sketch through a portion of the Ming-oi of Qamturâ.

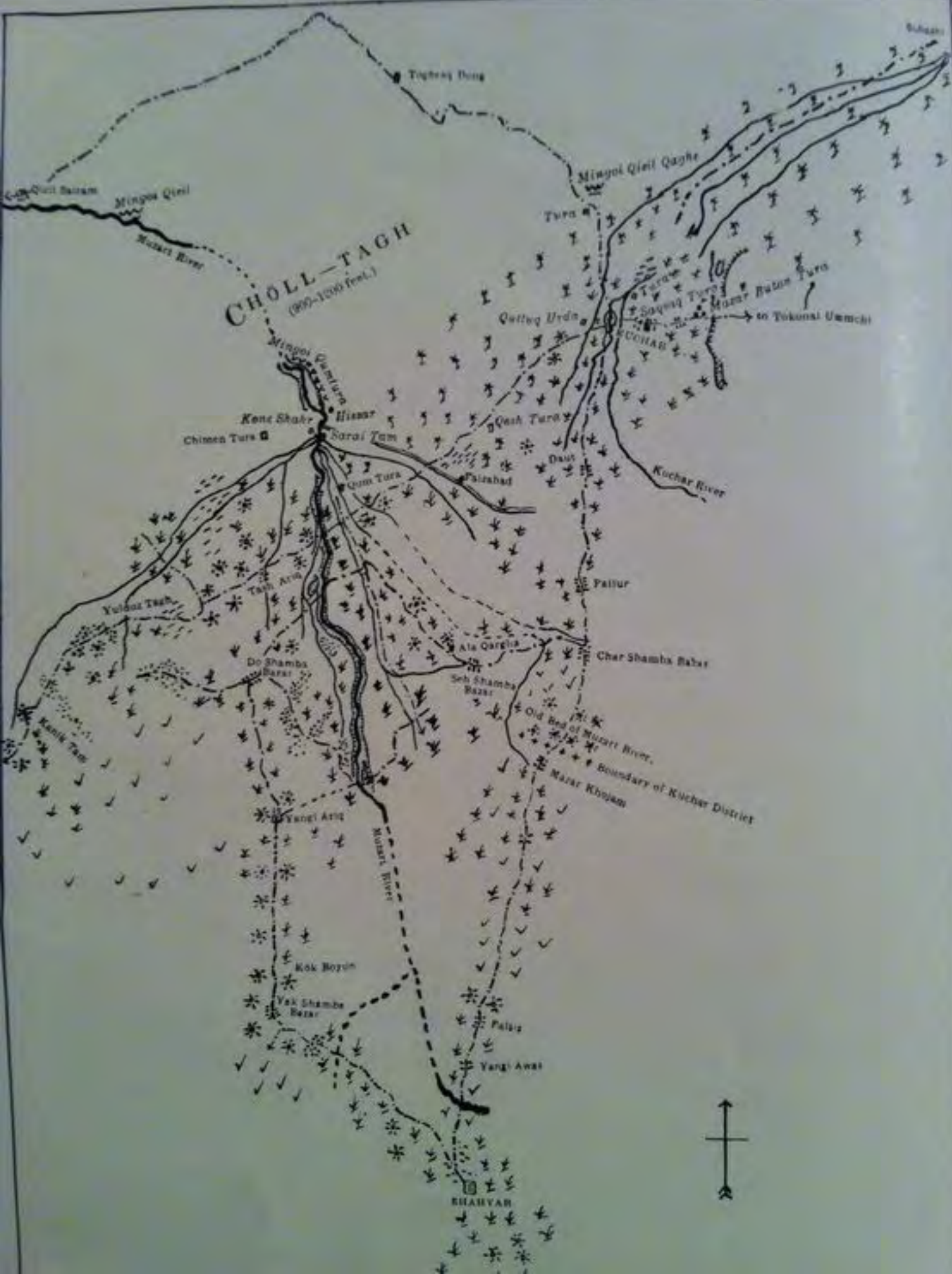
(ii) Nearly two years later, in a letter dated Kasauli, the 17th August 1892, written in response to a request by me for further particulars, Lieutenant Bower wrote as follows:

"The story of the finding of the manuscripts is this. A man in Kuchar told me of the existence of an underground city, and said that he had gone there to dig for treasure a few days previously, but had only succeeded in finding what he called a book. I asked him to show it to me; and he went away, and came back bringing the manuscript as it now is. He was anxious to sell it and . . . I was very glad to pick up for a small sum what might prove of great value.

"I induced him to take me to the underground city; and as he was frightened that he might get into trouble for taking a stranger there, we marched in the night. When day broke, we found ourselves amongst some low barren hills,¹⁸ and keeping on, came to the banks of a river, and there the hills were tunnelled by the streets of the ancient city. I asked the guide to show me the place he had dug the manuscripts out of and he took me to the large mound-like erection that I have alluded to before [see No. i], to the best of my recollection about 500 yards from the underground city, and showed where a hole had been recently excavated straight in, level with the ground. There some bits of wood lay about, but in a very crumbly state.

¹⁷ As a fact, similar Ming-oi, or large groups of rock-cut caves, exist at Qizil, west of Kuchar, higher up the Muzart river; at Qizil Qâghe, north of Kuchar; and at Buton Turâ, east of Kuchar; also further north-east, at Subashi and Simsin. See the Sketch Map.

¹⁸ According to Dr. Stein (letter of 3rd Dec. 1909) "very low broken conglomerate ridges approach the town from north-west and west."



"A more perfect hermetical sealing than the mound formed it would be impossible to imagine as the outside had a slight coating of a baked clayey nature, . . . and the documents had been buried right in the centre of it. The statement that they were dug out of the ruins of the underground city is a total misconception of the facts.¹⁹ . . .

"I think I saw about Kuchar five or six of these mound-like erections.²⁰ This (Fig. 2) will give you a rough idea of the erection. The asterisk indicates the place where the documents were found."

(iii) Again three years later, in 1895, Captain Bower repeated his account of the acquisition of the manuscript in a paper contributed by him to the *Geographical Journal* of the Royal Geographical Society of London, in which he described his trip to Turkestan." That account, in Vol. V., pp. 254 ff., was as follows :—

"At Kuchar, where I halted for several days, a Turki who had been in India, used to come and sit with me in my room in the *serai*. One day in conversation, he told me about an ancient city he knew of, built underground in the desert. I thought at first that he meant one of the ordinary buried cities of the Gobi desert; but he insisted that it was something quite different, and explained that it was underground by the wish of the people that made it, not by reason of a sandstorm. He told me also that he and one of his friends had gone there and dug for buried treasure, but had found nothing but a book. I asked to see it; and going away, he returned in about an hour, bringing some sheets of birch bark covered with writing in a Sanskrit character and held together by two boards. I bought them from him; and it was fortunate that I did so, as they have since excited a considerable amount of interest in the learned world . . . When I asked him to take me to this interesting place, he demurred a good deal, on the ground that the people would kill him, if he took an European there; but at last he consented on condition that we went at night, so as not to be seen. This I readily agreed to do; and starting at midnight, we marched steadily forward in a westerly direction. When daylight broke, we had left cultivation far behind, and were on the shoulders of a range of low gravelly hills, and away to the south a narrow strip of green with houses at intervals marked the course of a canal. Keeping on, we came to the curious old erection from under which the manuscript had been unearthed. Similar erections are found in different parts of Chinese Turkestan . . . They are solid, and built of sun-dried bricks and wooden beams now crumbling away. In shape they roughly resemble a gigantic cottage loaf, about 50 feet high."

"Close by, on the banks of a river, were the remains of the ancient underground city of *Ming-oï* to which the guide had promised to take me . . . High upon the face of the cliffs overlooking the water, the marks of what have been habitations are to be seen worn away in such a manner as to show sections, . . . I entered one of the tunnels. It was shaped as under . . ."

Here follows the section through the *Ming-oï* (Fig. 1), and its explanation i exactly as given in No. i (p. iv).

With the help of the Topographical Plan and View of the *Ming-oï* of Qum Turà (see Frontispiece, Nos. II and III), which I owe to the kindness of Professor Grünwedel, the description of Lieutenant Bower's march will be readily understood. He approached the *Ming-oï* from the east, from Kuchar. (See the Sketch Map of the Oasis of Kuchar.) At day-break he was above the point marked A on the Plan, looking "away to the south" on the double canal with its narrow strip of green cultivated land, and the houses belonging to the large village of Faizâbâd. "Keeping on" he came to the ruined

Fig. 2.



Sketch of the ruined stupa at Qumturà.

¹⁹ This apparently refers to the remarks of Bühler in his paper on the discovery of the Bower Manuscript in the *Vienna Oriental Journal*, Vol. V (1891), pp. 103 and 302.

²⁰ As a fact, there are four ruined stūpas near Qum Turà, one at Qosh Turà, and one at Qutluq Urdà (letter from

Dr. Stein, 3rd Dec. 1909)—all six on, or near, the line of Lieut. Bower's march to the *Ming-oï* of Qum Turà. See the Sketch Map. Of the four stūpas near Qum Turà two are at D, one at A, and one at C of the Topographical Plan.

stûpa of the manuscript at the point marked C. "Close by," at the distance of about 500 yards (see No. i), was the main group of caves on the left bank of the river, into one of the tunnels of which Lieutenant Bower entered. On his return, he went to the village of Faizâbâd, the houses of which he had, earlier in the morning, discerned from a distance, see below p. xiii.

(iv) With regard to the Weber Manuscripts, the earliest reference to their discovery is contained in a letter, addressed to me by the Rev. F. Weber, of the Moravian Mission in Leh, in Ladak, on the 21st June 1892. Translated from the German it runs as follows :

"Two years ago I met here in Leh the traveller Captain Bower. He showed me an old book which had been found not far from Yarkand,²¹ and which he intended submitting to you . . . I regret that I have never been able to learn anything about the age of that book; but in the meantime I have succeeded in getting hold of an undoubtedly very old book, which I venture to submit to you for critical examination. It was found, the year before (*im vergangenen Jahr*), not far from Kugiar on the border of Yarkand²¹ Near that place, there is a house which, apparently since immemorial times, is ruined and buried.²² Some merchants, hoping to find treasure, undertook with much trouble to excavate it, but found only the bodies of some cows which, on the first touch, crumbled into dust. On that occasion they found also the above mentioned book."

(v) The above narrated particulars of the excavation of the "house," or stûpa, in which the Weber Manuscripts were found, Mr. Weber had from a letter written in Urdû, which was interpreted to him by the person who delivered the manuscripts to him. This appears from another letter addressed to me by Mr. Weber from Leh on the 29th July 1892. In it he wrote that the book had been no more than three days in his hands before he transmitted it to me. He, then, continued as follows (translated from the German original) :—

"As I received the book through an intermediary, the latter could not furnish me with exact information. He showed me a letter in Urdû (which, however, I could not read) written by the finder of the book, an Afghan merchant, in which the find-place and everything that I reported in my previous letter was stated. The people knew that I collect Tibetan objects of every kind, and it was for that reason that the book was brought to me."

(vi) The identity of the "intermediary" (Munshi Ahmad Dîn), and the "Afghan merchant" (Dildâr Khân), mentioned in the preceding quotation, is disclosed in a letter written by Mr. Consul Macartney, on the 12th October 1896 from Kâshgar, to Lieut.-Colonel Sir A. C. Talbot, K.C.I.E., then British Resident in Kashmir. That letter was sent together with the Macartney Manuscripts, the acquisition of a portion of which is explained in it as follow :²³

"This is a manuscript, presented by Dildâr Khân, an Afghan merchant in Yarkand. It appears that when the Bower MS. was found in Kuchar, two others were at the same time and under the same circumstances discovered.²⁴ Dildâr Khân obtained possession of the latter, and took them to Leh in 1891.²⁵ He gave one to Munshi Ahmad Dîn, who in his turn presented his acquisition to

²¹ The reference, of course, is to the Bower Manuscript, which, owing to a misapprehension, Mr. Weber at that time believed to have been discovered in Kugiar (Kokyar), about 60 miles south of Yarkand, at 77° 12' E. Long., and 37° 25' N. Lat. See the Map in the *Geographical Journal*, July 1893. The misapprehension was subsequently corrected in a letter addressed to me by the Rev. F. B. Shawe, from Leh, on the 15th September 1893. See Sir Charles Elliott's Annual Address to the Asiatic Society of Bengal, 1894, p. 33; also *Journal ASB.*, Vol. LXII (1893), pp. 1 and 2; and *ibid.*, Vol. LXVI (1897) p. 239.

²² The German original has *Personen*

Haus. The word "house" evidently represents the Urdû *ghar* of Mr. Weber's native informant. That word appears to be usually employed by the natives of Turkestan to indicate a stûpa; see, e.g., Dr. Stein's *Ancient Khotan*, Vol. I., p. 483.

²³ See *Journal As. Soc. Beng.*, Vol. LXVI (1897), p. 27.

²⁴ This statement, as will be shown in the sequel, is a misapprehension. The "two others" are rather "two bundles of manuscripts" (see No. x), and they were found at a place and at a time different from those of the discovery of the Bower Manuscript.

²⁵ This should be 1892. See Nos. iv and v.

Mr. Weber, Moravian Missionary. Hence the origin of the Weber Manuscripts. The other manuscript in Dildâr Khân's possession was taken by him to India, and left with a friend of his in Aligarh, a certain Faiz Muḥammed Khân. Dildâr Khân brought it back to Turkestan last year [1895], and presented it to me."

(vii) From the preceding quotation it is seen that the "intermediary," from whom Mr. Weber received his manuscripts, was Munshi Aḥmad Dîn, and that the "Afghan merchant," who sent them, through the intermediary, to Mr. Weber, was Dildâr Khân of Yarkand. This man, however, was not the writer of the Urdû letter to which Mr. Weber (in No. v) refers. That letter must have been one written to Dildâr Khân by his elder brother, Ghulâm Qâdir Khân, who sent the manuscripts, a portion of which found their way to Mr. Weber, through Munshi Aḥmad Dîn. This appears from an account, which was procured for me by Mr. Macartney from Dildâr Khân himself in January 1898. That account was written in Urdû and may be translated as follows²⁶:

"I heard from my brother Ghulâm Qâdir Khân that there was a dome-like tower near Kuchar at the foot of a mountain. Some people said that there was a treasure in it; it must be searched out. Accordingly, some people, making a hole in the tower, began to excavate it, when inside they found a room holding compartments (*ghar khânadâr*),²⁷ and in it a cow and two foxes standing. On touching them with the hand the cow and foxes fell to the ground as if they were dust. In that place those two books²⁸ were found enclosed in wooden boards. Also there is in that place a wall made as if of stone (*dîwâr sang ke muwâfiq*), and upon it something is written in characters not known. It is said that a few years ago an English gentleman²⁹ went there, and having visited the place, came away. Nothing more is known."

Plainly this account is identical with that given by Mr. Weber (see No. iv), as interpreted to him from an Urdû letter. It shows that the letter was written by Ghulâm Qâdir Khân, an Afghan merchant resident in Kuchar, to his brother Dildâr Khân, a merchant residing in Yarkand. It was this letter, in the possession of Dildâr Khân, on which the latter based the account, above-quoted, which he gave to Mr. Macartney for transmission to me. The importance of these facts lies in this that we see that the earliest statement concerning the locality and the circumstances of the find of the Weber Manuscripts and Macartney Manuscripts was made immediately after the discovery, in 1891, by a native informant in a letter written for the information, not of any European enquirer, but of his own brother. Native informants, in their dealings with Europeans, are, no doubt, not reliable; but in the circumstances of the present case,—a native merchant dealing with another native merchant, his own brother, with common interests—, there seems to be no good reason to distrust the substantial accuracy of the account of the discovery.

(viii) A little later in the same year, in November 1898, another more detailed account, in Urdû, of the discovery and dispersion of the Weber and Macartney Manuscripts was procured for me by Captain (now Lieut.-Colonel) S. H. Godfrey, C.I.E., from Munshi Aḥmad Dîn. In all probability it was based on information supplied to the Munshi by Dildâr Khân. The main points in it are the following³⁰:

²⁶ See my *Report on the British Collection of Central Asian Antiquities*, Part I, Introd., p. xi.

²⁷ In my *Report* (see preceding note) this phrase is translated "spacious," but the literal, and more correct, translation is as in the text above.

²⁸ Or rather "bundles of manuscripts." See below No. x.

²⁹ This is a confused reference to Lieutenant Bower who went to Qum Turâ, but not to Qutluq Urdâ.

³⁰ See my *Report on the British Collection of Central Asian Antiquities*, Part I, Introd., pp. x and xi. There explanatory statements of my own are interspersed. See also *Proceedings*, ASB., 1898, pp. 63, 64.

"Some years ago some people of Kuchar undertook to make an excavation of an ancient tower. Their object in digging into the tower was to find treasure, as it was well known that in the time of Yakûb Beg much gold had been discovered in such ancient buildings. Whether or not they found any treasure is not known; but what they did find was a number of manuscripts and detached papers, together with the bodies of a cow and two foxes standing. The manuscript books and papers were taken to the house of the chief Qâzî of the town, where a couple of days afterwards they were seen by Hâjî Ghulâm Qâdir heaped up in a corner, there being a big basket (*sabud*) full of them. On enquiry, having been told the whole story by the Qâzî, he brought away a few of them. Of these he gave one to Lieutenant Bower,³¹ while he sent the others to his younger brother Dildâr Khân in Yarkand. These the latter took with him to Léh in 1891.³² Here he gave one portion to Ahmad Dîn, who in his turn gave it to Mr. Weber. The other portion Dildâr Khân took with him to India, where he left it with a friend in Aligarh. On a subsequent visit to India, in 1895, he re-took it from his friend, and brought it back to Turkestan, and presented it to Mr. Macartney. What became of the rest of the manuscripts in the house of the Qâzî is not exactly known. It is probable that Andijani merchants in Kuchar, who are Russian subjects, got hold of some of them, and gave them to Mr. Petrovsky, the Russian Consul General in Kâshgar.³³ As late as 1894, ten manuscripts were reported by Dildâr Khân, on the information of his brother in Kuchar, to be in the possession of a certain Yusûf Beg. Unfortunately the negotiations set on foot by Mr. Macartney for the purchase of these manuscripts fell through, owing to the Beg's denial of possession from fear of the Chinese authorities. It is believed that subsequently Mr. Petrovski succeeded in purchasing them."³⁴

(ix) With regard to the ten manuscripts referred to at the end of the preceding account of Munshi Ahmad Dîn, I received, in response to a request for further information, in November 1895, from Mr. Macartney the translation of a letter of the Chinese Amban of Kuchar, dated on the previous 7th December 1894, which runs as follows³⁵ :

"I have received your letter desiring me to enquire whether there are any sacred Tibetan manuscripts in the family of Timur Beg. I lost no time in summoning him. He stated that he had no such manuscripts, but that some people had several years ago [*i.e.*, in 1891] dug some out from a big mound situated at the west of the city [of Kuchar], and almost 5 *li* [about one mile] from it, and as this took place a long time ago, the documents had either been sold or burnt. I also went in person to make an inspection of the mound which was about 10 *chang* [approximately 100 feet] in height, and about the same dimension in circumference. As people had already been digging there, a cavity was seen which however had fallen in. I hired 25 men to dig under proper supervision. After two months' work, they dug out only a parcel of torn paper, and torn leaves with writing on them. I now forward this to you. If afterwards I discover any person possessing such manuscripts, I shall again communicate with you."

(x) Subsequently the oasis of Kuchar was visited by a series of expeditions—Japanese, German, Russian, and French (see *ante*, p. iii)—for the purpose of exploring all the sites of archæological interest situated in it. It was the object of the last expedition, the French, led by M. Pelliot, more especially to explore systematically the sites reputed to be those from which the Bower, Weber, Macartney, and Petrovski Manuscripts had been extracted by the native treasure seekers. The only report on the subject, however, which as yet is available is contained in a letter of M. Pelliot,

³¹ This is a total misconception. Lieutenant Bower, as the latter states himself (see No. iii), received his manuscripts, not from an Afghan, but from a Turki, and as will be shown in the sequel, he received it one year earlier than the occasion here referred to. The statement, it should be noted, appears only in an account of 1898, and is due to a confusion of the Munshi himself. The genuine early and contemporary native tradition knows nothing of it. For an explanation of the facts, see below p. xii.

³² This should be 1892. See *ante*, note 25.

³³ That this really was the case is proved by the fact that among the manuscripts which Mr. Petrovski sent to the

Imperial Library in St. Petersburg during the autumn and winter of 1892-3, there are portions of at least two manuscripts, of which other portions are included in the Weber and Macartney Manuscripts. See *Journal*, As. Soc. Beng., Vol. LXVI (1897), pp. 241-2, also my *Report*, Part II, in Extra Number to *Journal*, ASB., Vol. LXX (1901), pp. 16-17 (No. 2, Pothî); also *Vienna Oriental Journal*, Vol. VII, p. 273.

³⁴ These, of course are not included in the Petrovski Collection of 1892-3 referred to in the preceding note.

³⁵ See *Journal*, As. Soc. Beng., Vol. LXVI (1897), pp. 213-4.

dated the 29th January 1907, which was read by M. A. Barth to the French Académie des Inscriptions & Belles Lettres in their séance of the 22nd March 1907, and which is published in the *Comptes Rendus*, pp. 162 ff. It gives an account of all the information which at present, and at this distance of time, appears to be obtainable at the locality of the discoveries itself. M. Pelliot relates (*loc. cit.* p. 164) that on the 21st January 1907 he went to visit the *Ming-oï* or rock-cut caves of Qizil to the north-west of Kuchar (see the Sketch Map.) On his return he took the more difficult hill route, where he met with a well-educated Turki, named Timur Beg, who was in charge of the copper mines of Kuchar. From this man M. Pelliot elicited some interesting information regarding the discovery of the manuscripts in question. His letter, translated from the original French, proceeds as follows (p. 165) :—

“From the time of my arrival at Kuchar, Berezovski had spoken to me about 250 bundles of Hindû manuscripts which had been found about a score of years ago, in the ruined grand stûpa of Qutluq Urdâ, a little to the west of Kuchar. These books, Berezovski told me, had been distributed in a series of small receptacles built into the very brick core of the stûpa; and some of them still remained in a certain Turki family which refused to sell them. Berezovski had this information from “his man” as he always called him, a shady person, treasure-seeker and sorcerer on occasion, well acquainted with the country, but a liar without an equal. I have caught him *in flagrante delicto* on several occasions, and as the places which were shown to me as the ancient receptacles of the book were little capable of ever having contained anything, I was convinced that, even if the discovery was true, at all events the informant, Mîr Sherif, had not been an eye-witness of it.”

“Until my meeting with Timur Beg it had seemed to me little probable that we should ever hear much more about the discovery. But while I was conversing with him, he spoke to me, of his own accord, of books which had been found some time ago by treasure seekers at Qutluq Urdâ. There were about 25 bundles, each between two wooden boards, the whole in an unknown script, measuring about 0·30 by 0·10 metre; also one very large book was found in a bag. The treasure seekers, not knowing what to do with their booty, offered it to Timur Beg’s uncle, Ghanizat Khoja, who was the headman of that part of the village. He, however, did not attach to the books any greater value, and thus little by little, being torn by the children, and exposed to neglect, they all got lost. No one suspected that these old papers could possess any value.”

“The idea occurred to me that possibly the Bower Manuscript was one of the manuscripts of Ghanizat Khân. For this, however, I had no proof, nor even any serious indications. In fact, as I should explain, Bower was told that his manuscript had been found in one of the caves of the *Ming-oï* of Qum Turâ. This in itself is quite possible; for though, as a rule, the *Ming-oï*s have yielded only detached leaves, the Germans are said to have stumbled at Qizil on an almost complete text.³⁶ But in any case, it appeared to me very little probable that the particular grotto which had been indicated to Bower, and which, in the course of centuries, had been but little encroached upon by the sands, had yielded any manuscript. The find, if it was made at all in Qum Turâ, must have taken place in another grotto.”

“But there is another possible solution. I asked Timur Beg whether he ever heard of any of the bundles having been sold to a foreigner. He replied that he had heard say that one of the servants of his uncle had once taken one or two bundles and sold them to the “Afghan” Qâdir Khân, who had resold them to an Englishman.³⁷ There is still, at the present day, at Kuchar a Qâdir Khân who, as a fact, is an English subject. People call him an Afghan, just as they call the Aqsakal an “Afghan,” because he comes from the region of Peshawar. Is he the same man? I do not know; for, as I believe I had understood from Timur Beg that the Qâdir Khân in question was dead. If the truth of his story

³⁶ Dr. A. von Le Coq informs me (letter 29th October 1909) that it was a well preserved *pôthî* tied up between two wooden boards, consisting of a large number (about 60) of leaves in Brâhmî script, and Sanskrit language; also one leaf in Brâhmî script and an unknown language; measuring about 22 × 7 cm. It is shown in figs. 6 and 7, Chapter II, pp. xvii and xviii.

³⁷ This is a vague reference; but it cannot refer to Lieut. Bower, who is out of the question, but to Mr. Weber or to Mr. Macartney, or possibly to both. See below, page xv.

can be fully relied on, it would seem to afford us glimpses of the Bower MS. I am rather disposed to admit that solution, seeing that the manuscripts of Qutluq Urdâ are, on the whole, the only ones regarding which I have hitherto obtained some little more precise information. On the other hand, if Qâdir Khân owed his manuscripts to the theft of a servant, he would only too naturally prefer to attribute them to another source, and, from this point of view, the *Ming-oï* of Qum Turâ would be just what he required."

"But it is also possible that we have here a false tradition, that the sale to an Englishman is an invented story, and that the reference is perhaps rather to a text which Petrovski acquired and which may now be in St. Petersburg. We must not forget that in consequence of Bower's discovery, Petrovski and Macartney sent men into the country, and their enquiries, by arousing the attention of the natives, would tend to originate legends. All that I wish to say is that the traditional version of the discovery of the Bower MS. can be received only with a good deal of reserve, and that possibly the manuscript came from Qutluq Urdâ."

(xi) In a subsequent English letter, dated Peking, 10th July 1909, addressed to me in response to a request for further information, M. Pelliot wrote as follows :—

"Unfortunately I have not come across any new date since the time I wrote to the Academy the letter you allude to. [See No. x.] Qoutlouq Ourdâ is a ruined stûpa, lying about one mile to the west of the town of Kuchar, while the Qoum Tourâ *Ming-oï* is about 12 miles further west, on the left bank of the Mouzart Daria I am quite at a loss to decide between the two versions I have collected for the discovery of the Bower Manuscript. It may just as well be true that they were unearthed in the cave Bower was shown to. But it seems to be a well-established fact that an important manuscript-find was made in the Qoutlouq Ourdâ stûpa some time before the arrival of Captain Bower. I really cannot say anything more."

(xii) M. Pelliot's concluding remark in the preceding No. xi regarding the "well-established fact of an important manuscript find in the Qutluq Urdâ stûpa" is confirmed in a letter addressed to me by Dr. A. von Le Coq, dated the 9th October 1909, from which the following, translated from the German, is an extract :—

"That a very considerable find of manuscripts was made in a stûpa in Kuchar appears to me to follow from the narration of the Russian (Andijani) Aqsaqal in Kuchar, Chal Muḥammad. He showed me the pyramid-like structure near the town, north of the road to Qum Turâ, from which, some 20 years ago, some people extracted the largest find of manuscripts, which, so far as I know, had ever been made. Possibly the Bower Manuscript was part of that find. To native statements, as a rule, no weight attaches ; but this man was the most honest of all whom I came to know in that place."

(xiii) From the careful survey made by the French expedition it appears as I learn from M. A. Barth (letters of the 3rd June and 22nd October 1909), that there are four stûpas in the neighbourhood of the *Ming-oï* of Qum Turâ. Their distribution is shown in the following extract from a letter to me of Dr. M. A. Stein, dated the 3rd December 1909 :

"The Qum Turâ site, as far as I saw it on a gloomy winter day, consists of :

- (a) the caves on the left river bank, in two groups, close together, cut into the barren outer hills ;
- (b) a Kone Shahr, or "ancient city," about $1\frac{1}{2}$ miles to the south, near the right bank of the river, containing the ruins of a large monastery with one stûpa in the centre, and another big stûpa ruin outside it to the north ;
- (c) the Sarai Tam ruin, about $1\frac{1}{4}$ miles to the south-west of (b), on the left bank of the river, consisting of a massive enclosing wall about 55 yards square with a ruined stûpa in the centre, and a fairly well preserved Qumbâz in one corner.

"In addition I noticed some ruins, probably of temples, about 150 feet above the caves on a ridge of the left bank. These I had no time to visit, and hence cannot say whether stûpas could be distinguished among them."

That there was, however, a large stûpa among them, the fourth of the list, appears from a letter of Dr. A. von Le Coq, dated the 24th October 1909 :

"Stûpas are there Bower's statements are likely to be correct ; all the stûpas are more or less ruined. Qum Turâ, or 'the (old) building in the sand' is a modern small settlement which takes its name from an old (Buddhist) temple which stands on a gravelly alluvial flat [apparently Sarai Tam] on the bank of the river where it debouches from the valley. On the height of the eastern [left] bank there stands, unless I am much mistaken, the principal stûpa. In order to get to the *Ming-oï* one has to ride in the bed of the river (or on the ice). I should say the distance is about half a kilometer."

In a later communication from Dr. von Le Coq, on the 16th November 1909, the following distances are given :

"The distance from Qum Turâ to the Turâ [or the ruined building] on the ridge is about five kilometer [or about three miles]. We rode at the time over the ice : in the summer the distance may be a little greater. From the Turâ to the beginning of the caves I should say the distance is about 500 meters [or about 500 yards, see No. ii]."

On the basis of the above-given extracts from letters as illustrated by the Sketch Map, the Topographical Plan, and the View of Qum Turâ, an attempt may now be made to determine what, in all probability, would seem to have been the true find-place of the Bower Manuscript. In the first place, two misapprehensions must be removed which hitherto have prevented its recognition. It will be seen from the extracts Nos. x, xi and xii, that according to an admittedly well established native tradition, current in Kuchar, a large find of manuscripts was made in the Qutluq Urdâ stûpa ; and it is there suggested that the Bower Manuscript may have formed part of that find. Again, in Nos. x and xi, a rival version of the tradition is referred to, according to which the Bower Manuscript was found in one of the caves of the *Ming-oï* of Qum Turâ. Now this rival version is not a native Kuchari tradition at all, but merely a mistaken view originally started by Bühler in his contributions to the *Vienna Oriental Journal*, Vol. V (1891), pp. 103 and 302, in which, after having read Lieutenant Bower's note (quoted in No. i), Bühler announced the discovery of the Bower manuscript to the learned world of Europe, as having been "obtained by Lieutenant Bower from the ruins of the ancient underground city of *Ming-oï*, near Kuchar in Kashgaria." On referring to that note, it will be seen that Lieutenant Bower made no such statement. He says explicitly that the manuscript was "dug out of the foot of one of the curious old erections" which stood "just outside (or "close to" as in No. iii) the subterranean city." Bühler's misrepresentation is, in the circumstances, easily enough explainable, but it suggested what Lieutenant Bower explicitly states in his letter (see No. ii) to be "a total misconception of the facts"; and unfortunately it has had the effect of obscuring the real facts to all subsequent investigators.

The correction of Bühler's misconception practically disposes also of the other misapprehension regarding the Qutluq Urdâ stûpa. As may be seen from Nos. ix, xi, and xii, that stûpa is situated close to the town of Kuchar itself, that is to say, only about one mile" (No. xi), or "about 5 li" (No. ix) to the west of that town, and north of the road to Qum Turâ ; while the stûpa, from which the Bower Manuscript

was extracted, stands close to, that is to say "about 500 yards" (No. ii), or "about half a kilometer" (No. xiii) from the *Ming-oï* of Qum Turâ, and that *Ming-oï* itself is situated, according to Lieutenant Bower, "about 16 miles from Kuchar" (No. i), or according to M. Pelliot, "about 12 miles further west" (No. xi) from the Qutluq Urdâ stûpa, that is to say, about 13 miles from the town of Kuchar. Clearly the stûpa of the Bower Manuscript, and the stûpa of Qutluq Urdâ from which the Weber, Macartney and Petrovski manuscripts were obtained, are two entirely distinct structures.

But the extracts, above given, furnish us with some further corroborative evidence. Lieutenant Bower tells us that his stûpa (*i.e.*, the stûpa close to the *Ming-oï* of Qum Turâ) was "about 50 feet high" (No. iii). On the other hand, the stûpa of Qutluq Urdâ, which is described by M. Pelliot as a "grand stûpa" (No. x), is stated by the Chinese Amban, who visited it at the end of the year 1894, to have been "about 10 *chang* (or about 100 feet) in height, and about the same dimension in circumference (No. ix). This "grand stûpa," therefore, in those days, was about twice the size of the stûpa of Qum Turâ. Again the stûpa of Qum Turâ, according to both Lieutenant Bower and Dr. von Le Coq, stands right upon the (eastern or left) bank of the river Shâhyâr (Nos. iii, xiii), or Mazart as it is also called (No. xi), while the stûpa of Qutluq Urdâ is described by Dildâr Khân, in his Urdû account, as standing "at the foot of a mountain" (No. vii), the reference apparently being to the "low barren hills," alluded to by Lieutenant Bower in the account of his march to Qum Turâ (No. ii). The topographical position of the two stûpas, therefore, is quite different. There is a further difference in the dates of the opening of the two stûpas. Lieutenant Bower obtained his manuscript early in 1890. Therefore the stûpa, in which it was found, was opened, at least, as early as that year. In fact, as will be shown presently, it appears to have been opened only a few days previously. On the other hand, the Qutluq Urdâ stûpa must have been opened in 1891, that is, about one year later than the Qum Turâ stûpa. For when Mr. Weber obtained his manuscripts in June 1892, he was told that they had been found "the year before" (Nos. iv and v), that is to say, in 1891. There was, therefore, an interval of about one year between the openings of the two stûpas. Between the year 1891 and the date of M. Pelliot's visit in 1907, there is an interval of 16 years. The native tradition, at the time of his visit to Kuchar, made the interval to be "about a score of years" (No. x). The same statement, "some 20 years ago" was made about the same time to Dr. von Le Coq (No. xiii). As to this discrepancy, the contemporary statement, made to Mr. Weber, is obviously more trustworthy than the vague statement, in round numbers, of a much later oral tradition, which had no longer an exact recollection of the date, and which, in any case, would be inconsistent with either date, 1890 or 1891. M. Pelliot's remark that the find in the stûpa was made "some time before the arrival of Captain Bower" (No. xi) would seem to be merely a deduction from the statement "about a score of years" in the native tradition, seeing that the latter would work out about the year 1887, or about four years earlier than Lieutenant Bower's visit. The tradition itself knows nothing about Lieutenant Bower. Lastly, there is a difference between the numbers of manuscripts which are reported to have been found in the two stûpas respectively. The Bower Manuscript is the solitary

manuscript which is said to have been found in the stûpa at Qum Turâ (No. iii). On the other hand, with regard to the stûpa of Qutluq Urdâ the uniform native tradition is that a large number of manuscripts were dug out from it (Nos. viii, xii), the number being sometimes given as 25, and at other times (no doubt, exaggeratedly) even as 250 (No. x).

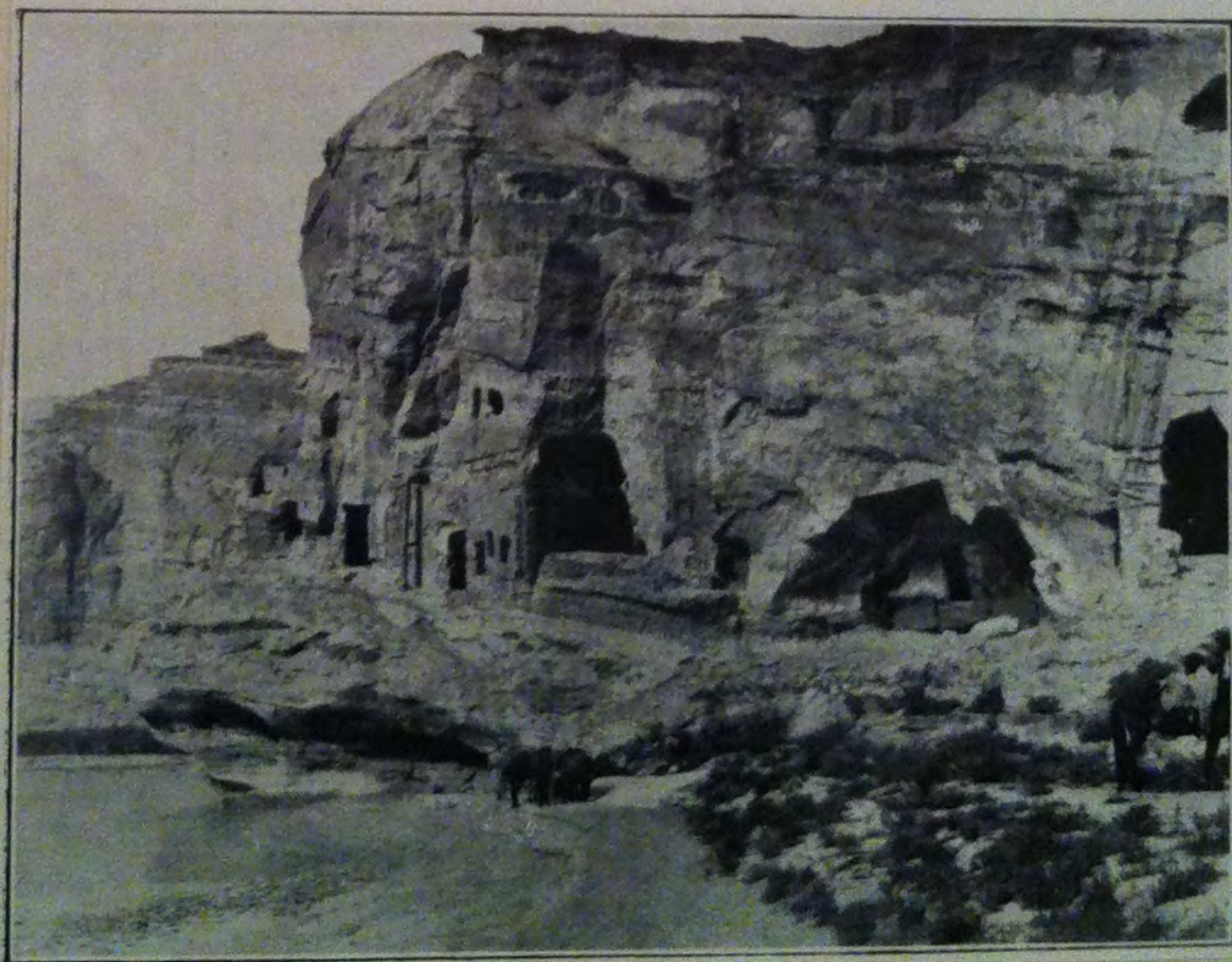
The facts above set out make it quite certain that the Bower Manuscript was not found in the stûpa of Qutluq Urdâ, about one mile from Kuchar, but in a stûpa close to the *Ming-oï* of Qum Turâ, about 13 (or 16) miles from that town. But further, it seems practically certain that it was dug out from the stûpa, on the ridge above the caves, at the spot marked C on the Topographical Plan. For this stûpa alone can be said to be "close to" the *Ming-oï* or "just outside the subterranean city" (No. i), the other three stûpas at Kone Shahr and Sarai Tam being about $1\frac{1}{2}$ to $2\frac{1}{2}$ miles distant from the *Ming-oï*.

Having determined what in all probability is the true find-place of the Bower Manuscript, we may now attempt to determine the exact time when it was discovered by the native treasure-seekers of Kuchar. For guidance we have the following data, supplied by Captain Bower in the report of his travels in the *Geographical Journal* of the Royal Geographical Society, Vol. V (1895), pp. 252 ff., and illustrated by the annexed Sketch Map. At Kuchar, Captain Bower tells us, he halted several days, and while staying there, he received, as related in Extract No. iii, the visits of a Turki who gave him the manuscript and guided him to its find-place, the stûpa close to the main group of caves of the *Ming-oï* of Qum Turâ. He started on this expedition about midnight of the day on which the manuscript was brought to him (Nos. i, iii). He reached the *Ming-oï* at day-break (say, about 5 A.M., Nos. ii, iii) of the following day. Here he spent some hours in examining the stûpa of the manuscript, and some of the adjacent caves of the *Ming-oï*, of the appearance of which the accompanying photographs (Figs. 3 and 4), supplied by the kindness of M. Pelliot and Dr. von Le Coq, give us some idea. Having done so, Lieutenant Bower went on to Faizâbâd, where he spent the night. The next day, *i.e.*, the second day after leaving Kuchar, he marched down the banks of a canal to Charshamba Bazar, shooting on the way wild ducks that were on the canal.

On the same day, or the day after, he reached Shâhyâr. On the 6th of March he left Shâhyâr on his return journey to Kâshgar, which he reached on the 1st of

April. These are the only two definite dates mentioned by Captain Bower in the recital of this part of his tour.

Fig. 3.



View of a portion of the Ming-oï of Qum Turâ.

He does not say how long he stayed in Shâhvâr, but as it was his second visit to the place, and as nothing that might have caused a longer detention is mentioned, it may be concluded that the 6th of March was the day after his arrival in Shâhvâr from his visit to the *Ming-oï* of Qum Turâ.

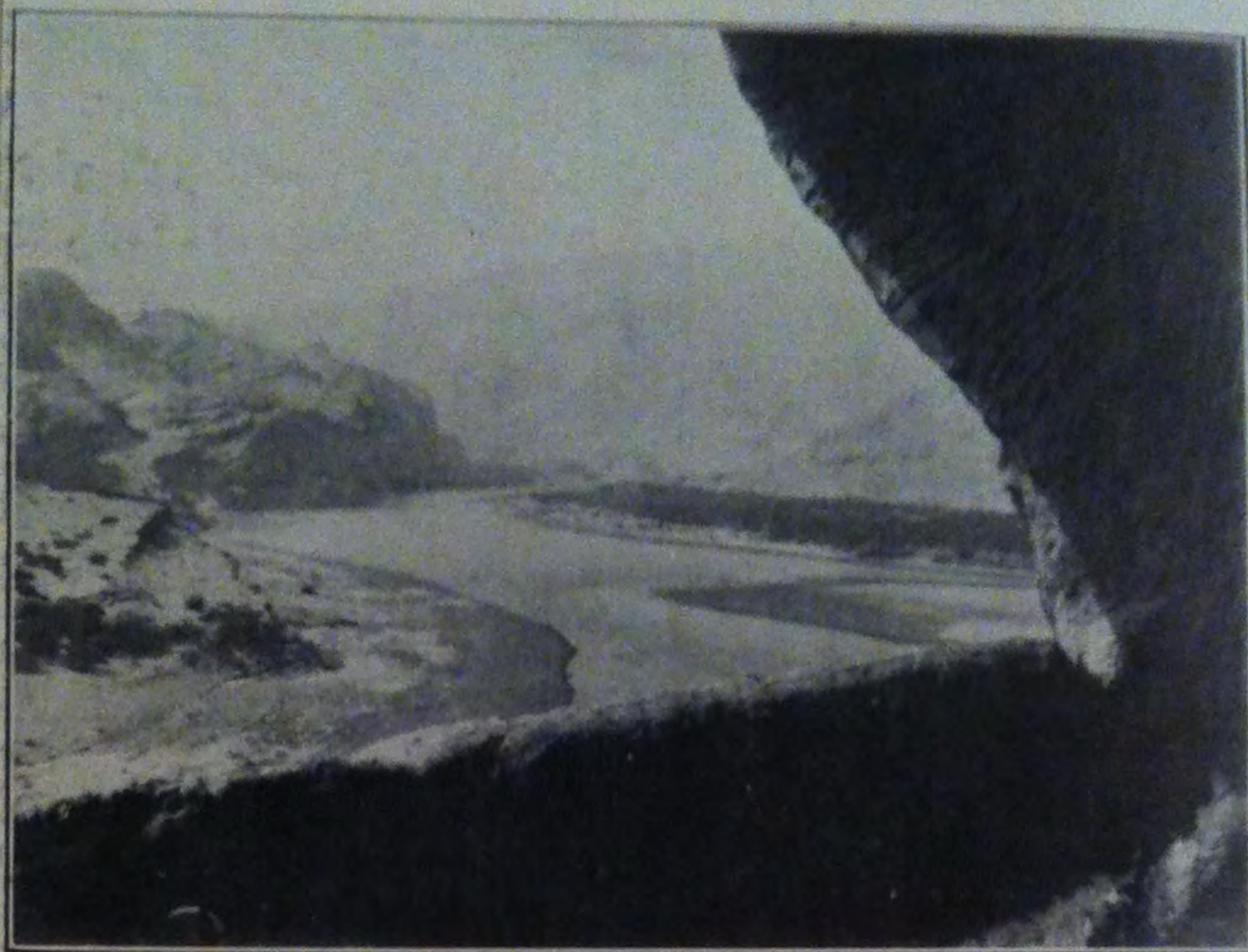
On the basis of this count, it was the 2nd or 3rd of March, on which Lieutenant Bower received the manuscript, and on the midnight of which he started on his visit to the *Ming-oï*. Now Lieutenant Bower states (see No. ii)

that the Turki, who brought the manuscript to him told him that he had dug it out "a few days previously," and that he "showed him where a hole had been *recently* excavated." It follows, therefore, that the discovery of the Bower Manuscript must have occurred a few days previous to the 2nd or 3rd of March, that is, on some day of the month of February of the year 1890.

Having passed in review the evidence for what is probably the true find-place of the Bower Manuscript, and for the exact time of its discovery, we may now proceed to sketch briefly the course of events connected with the discoveries and vicissitudes of the manuscripts called after the names of Bower, Weber, Macartney and Petrovski, so far as they may be deduced by means of a careful comparison and co-ordination of the statements quoted in the preceding extracts. There are some minor discrepancies in them; but they do not affect the main lines of the story.

In February 1890, two Turkis of Kuchar, searching for treasure, dug into the stûpas which stand near the *Ming-oï*, or system of rock-cut grottos, of Qum Turâ. In one of the stûpas, they discovered the birch-bark manuscript, which one of the two men on the 2nd or 3rd of March 1890, sold to Lieutenant Bower, and which is now known as the Bower Manuscript (Nos. i-iii). The partial success of this enterprise apparently suggested to a number of men of Kuchar the attempt to break into the neighbouring great stûpa of Qutluq Urdâ, which by its much larger size gave promise of the yield of much more valuable booty (No. vii). This enterprise, it appears, was executed some time in the early part of 1891. The story of the men as to what they found in the interior chamber of the stûpa seems never to have varied in its main lines from that year down to 1907, when it was repeated to M. Pelliot (No. iv of 1892, Nos. vii and viii of 1898, No. x of 1907). Nor is there any good reason to discredit it. Interior relic chambers do not uncommonly occur in stûpas of Eastern Turkestan, as has been observed by Dr. Stein in his *Ancient Khotan*, Vol. I, pp. 82 ff. Such

Fig. 4.



View of the river Shâhvâr from the window of a cave of the Ming-oï of Qum Turâ.

an interior chamber may be clearly seen, *e.g.*, in the subjoined view of the stûpa at Subashi (Fig. 5) to the east of Kuchar (see Sketch Map) from a photograph taken by Dr. Stein.

A similar interior relic chamber in the Maurî Tim Stûpa, near Khânui, is shown in Dr. Stein's *Ancient Khotan*, p. 74, fig. 13. However, the only point of interest in the men's story is that they found a large number of manuscripts, enough to fill a "big basket" (No. viii). These manuscripts are said to have consisted of twenty-five "bundles," that is,



VIEW OF STÛPA AT SUBASHI.

Indian *poṭhis* (see Fig. 6, p. xvii), each tied between two wooden boards, and written in a script unknown to the finders (No. x), that is, in a Sanskritic, or Brahmî, script. They were taken to the house of the Qâzî, or headman, of Kuchar (Nos. vii, x), a Turki called Ghanizat Khân, the uncle of a man, called Timur Beg³⁸ (Nos. ix, x). In his house they lay about, uncared for, and suffering much injury at the hands of the children. In the meantime, Lieutenant Bower, on his return journey to India, having shown his acquisition to Messrs. Macartney and Petrovski in Kâshgar, and to Mr. Weber in Leh, these gentlemen had instructed their native acquaintances, or Aqsaqâls, to keep an outlook for similar discoveries with a view to securing them (Nos. iv, v, x). The presence of the "bundles" of manuscripts in the house of the Qâzî soon became known generally in Kuchar. Among others the British and Russian Aqsaqâls in that town came to hear of it, and at once went to the Qâzî's house to secure some portion of the find for their patrons. The British Agent, an Afghan merchant residing in Kuchar, named Qâdir Khân, obtained, only a couple of days after the manuscripts had been brought to the house of the Qâzî, a few of them in two bundles, no doubt, by means of a gratuity given to the servant of the Qâzî (Nos. viii, x). The manuscripts thus obtained he transmitted to his brother, Dildâr Khân, another merchant, acting as the British Aqsaqâl in Yarkand. The latter sold, in the following year, 1892, one of the two bundles to Mr. Weber, through Munshi Ahmad Din. This bundle has since been known as the Weber Manuscripts. The other bundle Dildâr Khân carried to India, no doubt with the object of selling it there, but failing therein, he brought it back, in 1895, and disposed of it to Mr. Macartney in Kâshgar (Nos. vi, viii); and it has since been known as the Macartney Manuscripts. Similarly, the Russian Aqsaqâl in Kuchar, an Andijani merchant (perhaps the man Chal Muḥammad who was Dr. von Le Coq's informant; see No. xii), secured another bundle

³⁸ In No. viii the owner is called Yaqûb Beg. If this is not a mere error, Yaqûb Beg may have been a son of Ghanizat Khân, who may have been dead by that time.

of more or less injured manuscripts from the Qâzi's house, which he transmitted to Mr. Petrovski in Kâshgar, and which now form the Petrovski collection in St. Petersburg. As to what became of the remainder of the manuscripts in the house of the Qâzi, there is no certain information. The current opinion in Kuchar appears to be that, utterly neglected as they were in the house of the Qâzi, they gradually got lost or destroyed. Some of them may, in the form of detached leaves, have subsequently found their way into the hands of Europeans; others may possibly, as Mr. Berezovski seems to believe (No. x), still yield to persevering search. To the former class may possibly belong some of the detached leaves, which were given to Captain Godfrey in 1895 apparently by some Yarkand traders, and which are said to have been "dug up near some old buried city in the vicinity of Kuchar." They belong to the collection which now bears the name of the Godfrey Manuscripts.³⁹

The general truth of the native tradition respecting the condition of the manuscripts at the time of their discovery, and their treatment afterwards in the house of the Qâzi, is fully confirmed by the appearance of the Weber, Macartney and Petrovski Manuscripts at the time of their reception. At the latter date, they consisted of more or less disorderly bundles of damaged manuscripts in which a number of leaves of different manuscripts were mixed up. Among the Weber and Macartney Manuscripts there actually were portions of manuscripts of which other portions are among the Petrovski Manuscripts.⁴⁰ This strikingly illustrates the ignorant neglect and careless treatment to which, according to Timur Beg's story (see No. x), the manuscripts were exposed in the house of his uncle. According to that story, in the original condition in which they were found, they appear to have been in more or less good order, each manuscript being tied up, in the ordinary fashion of an Indian *pothî*, between two wooden boards (see No. x, also No. vii). The condition, in which probably they were found, may be seen from the photographs (Figs. 6 and 7, pp. xvii and xviii) of a manuscript, which was found by Dr. A. von Le Coq in a grotto of the *Ming-oï* of Qizil. As a matter of fact, among the Macartney Manuscripts both boards of a manuscript were still preserved, though the manuscript itself was defective. Also the bundle of Weber manuscripts contained two single boards of different sizes, belonging to two different manuscripts, which manuscripts themselves were defective both in the size and number of their leaves.⁴¹ It is probable that at the time these two manuscripts were found, they as well as their boards were in good order, and that they got into their present defective condition during their sojourn in the house of the Qâzi. Similarly the Bower manuscript was found enclosed between two wooden boards (see Chapter II). Again, according to the native tradition reported to M. Pelliot (No. x), the dimension of the manuscripts was about $11\frac{1}{2}$ by 4 inches (0.30 *sur* 0.10 *metre*). As a matter of fact, the Weber and Macartney Manuscripts, in their original condition, measured roughly from $5\frac{1}{4}$ to $10\frac{1}{2}$ inches in length, and from $2\frac{1}{2}$ to $4\frac{3}{4}$ inches in breadth.⁴² This is as near to the traditional statement as, in the circumstances of the case, we can reasonably expect it to be.

³⁹ See Journal, Asiatic Society of Bengal, Vol. LXVI (1897), Part I, p. 14, and Plates II and III.

⁴⁰ See the description of *pothî*, No. 2 of set I, in my *Report on the British Collection of Central Asian Antiquities*, Part II, page 16; also *ante*, footnote 33, p. viii.

⁴¹ See the description in the Journal, Asiatic Society of Bengal, Vol. LXII (1893), Part 2, pp. 2, 5, 9, 32, and Vol. LXX (1901), Extra Number, pp. 8, 16.

⁴² See *ibidem*, Vol. LXII, pp. 9 ff., Nos. 1, 2, 5, 6, 7, 9; also Vol. LXX, p. 18, No. 7.

CHAPTER II.—DESCRIPTION OF THE BOWER MANUSCRIPT.

The term "Bower Manuscript" is not strictly correct. As will be seen from the sequel, the object in question is not really a single manuscript, but, in point of size, rather a combination of two manuscripts, a larger and a smaller. The larger manuscript itself, moreover, in point of subject matter is a complex of six smaller manuscripts, the distinction of which from one another is indicated also by their separate pagination. The Bower Manuscript, therefore, in reality is a collection of seven distinct manuscripts, or it may be called a collective manuscript of seven parts. The latter is the terminology adopted in the present edition; that is, Parts I-III, IV, V and VII, constitute the larger manuscript, while the smaller manuscript consists of Part VI.

The external form of the collective Bower Manuscript is that of the Indian *póthi*.⁴³ A *póthi* consists of a number of leaves, of a practically uniform oblong shape, generally enclosed between two wooden boards, and the whole held in position, or "bound", by a string which passes through a hole drilled through the whole pile. Unfortunately no photograph was ever taken of the Bower Manuscript in the condition in which it was found, or in which it was made over by the finder to Lieutenant Bower. But an idea of its appearance may be formed from Fig. 6, which shows a paper *póthi*, tied up with a string between its wooden boards, exactly as it was found by Professor Grünwedel's expedition in a cave temple of the *Ming-oi* of Qizil.⁴⁴ In Fig. 7, the same *póthi* is shown untied and unfolded.

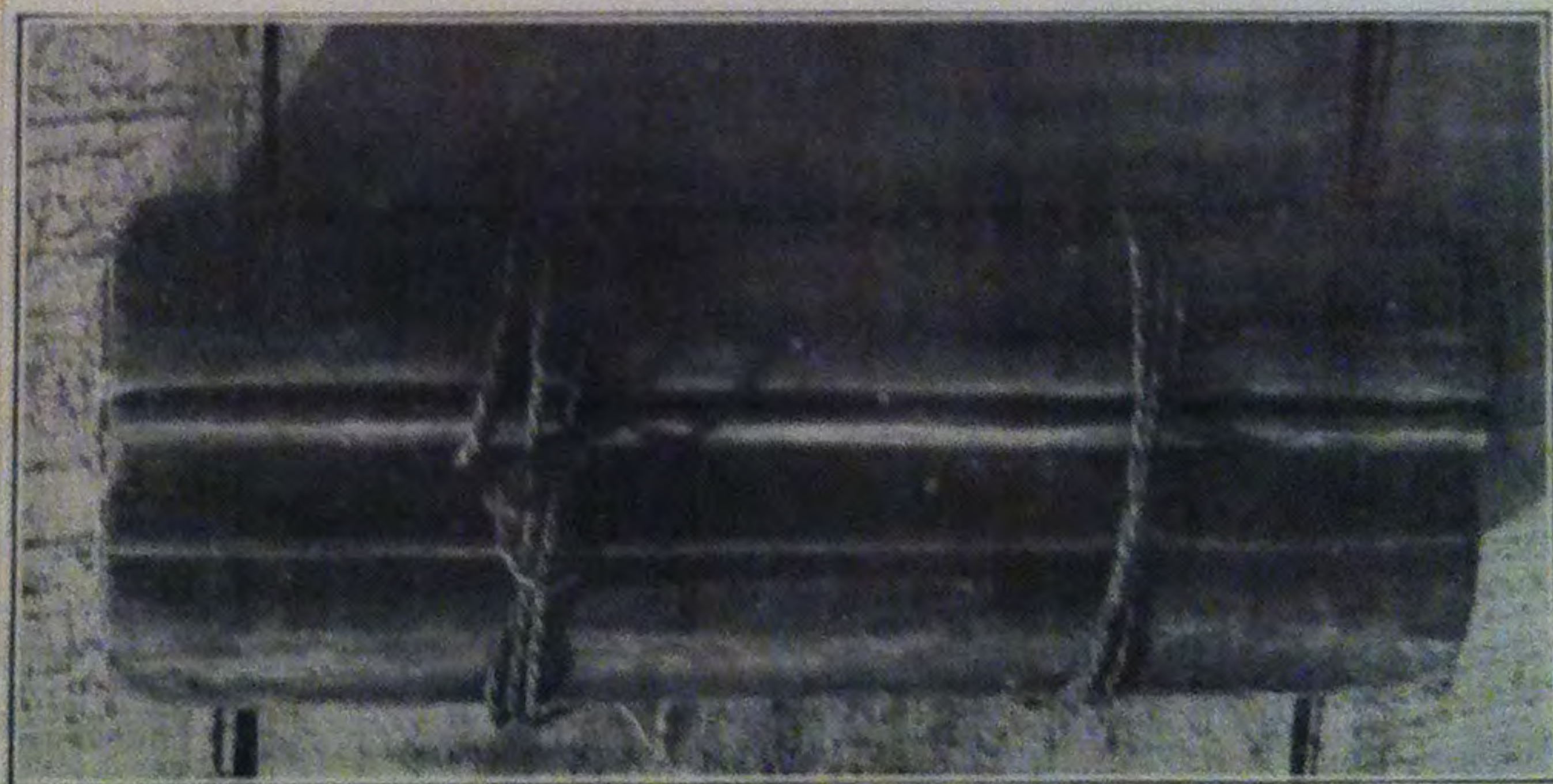


Fig. 6

Póthi found in the *Ming-oi* of Qizil. (Unopened).

The leaves of the Bower Manuscript are cut from the bark, or periderm, of the birch tree; those of a modern Indian *póthi* are, as a rule, of

paper.⁴⁵ Before the introduction of paper into India, which event probably coincided with the advent of the Muhammadans, the writing material for the purpose of literature was palm-leaf or birch-bark.⁴⁶ Palm-leaf must have been the original material of an

⁴³ From the Sanskrit *pustaka*, or rather *pustikā*, book, applied at the present day to any book, written or lithographed or printed, Indian or European.

⁴⁴ See Sketch Map to Chapter I.

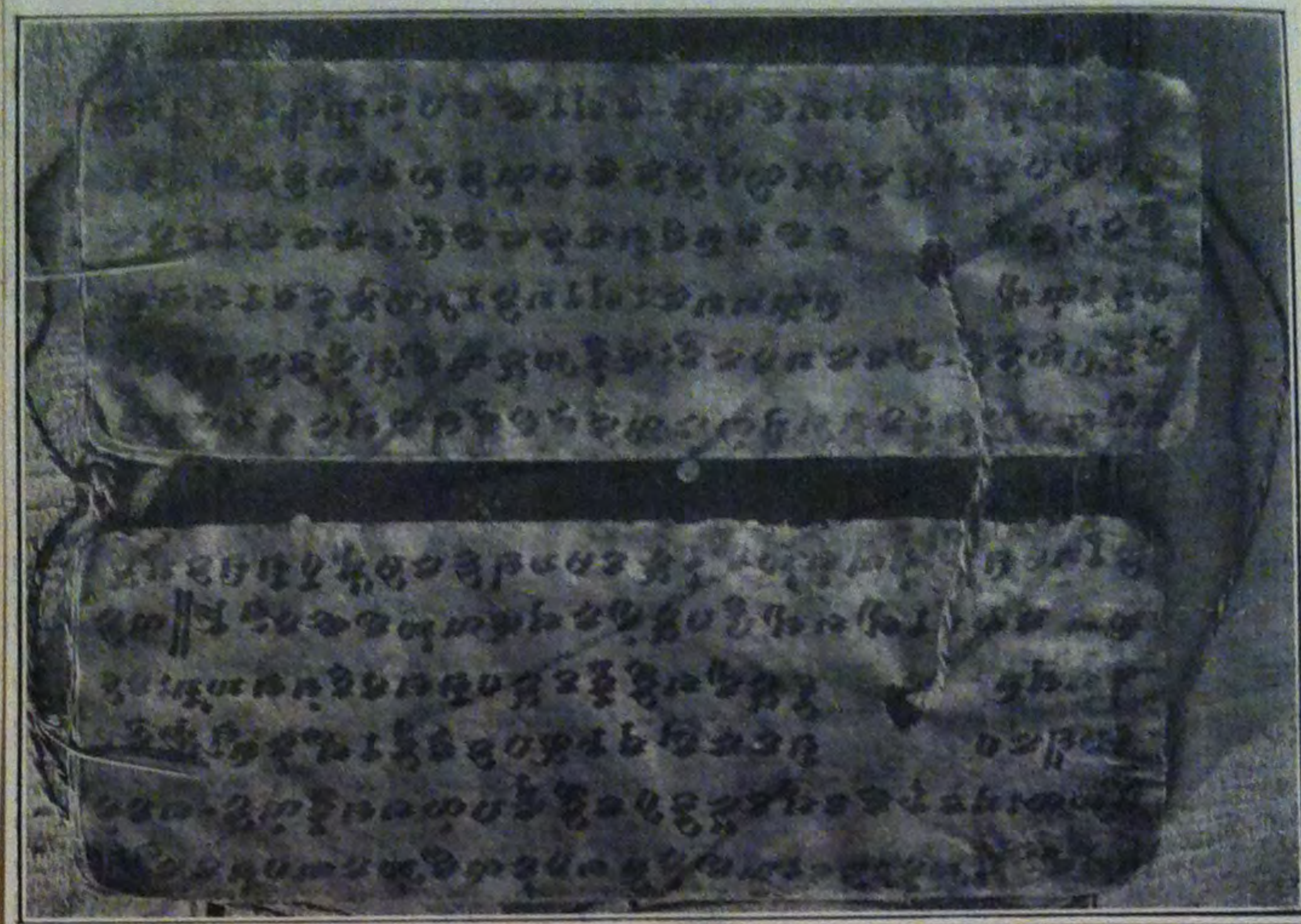
⁴⁵ Occasionally they are still made of palm-leaf, in Bihar,

Orissa, and Southern India.

⁴⁶ On the local distribution, and other particulars, of these two materials, see my Epigraphical Note, in the *Journal of the Asiatic Society of Bengal*, Vol. LXIX (1900), Part I, pp. 93 ff.

Indian *póthi*; for it was the shape of the palm-leaf which determined the narrow oblong shape of the leaves of the *póthi*. The bark of the birch tree may be obtained in very large strips, about a yard long and eight inches broad. There is no apparent reason why these strips should have been cut into narrow oblong pieces in order to be used as the writing material of books. On the other hand, from the long narrow segments of the leaf of a palm tree none but strips, at most about a yard long and three inches broad, could be cut. These, if used as writing material, necessarily determined the narrow oblong shape of the leaves of the *póthi*. The birch tree (*Betula utilis*), the "Himalayan Birch," is indigenous in the extreme North of India (e.g., in Kashmir), while the palm tree (Talipot, *Corypha umbraculifera*) is peculiar to the South of India. Hence the fashion of the Indian *póthi* must have originated in the South of India, while the original "book" of the North of India must have been written on large strips of birch-bark. As a fact the oldest Indian "book" on birch-bark, the Dutreuil de Rhins Manuscript, which probably dates from near the beginning of our era, is written on such large strips. The Southern Indian fashion of the *póthi* is, in many ways, more convenient for literary use; and as evidenced by the Bower Manuscript and by the other birch-bark manuscripts which have been discovered in Eastern Turkestan (see Chapter IV), it must, at a very early period, have made its way into Northern India, whence finally it was carried, by the spread of Buddhism, to Eastern Turkestan, nearly all the indigenous paper manuscripts of which exhibit the narrow oblong shape of the Indian *póthi*. At a much later period, probably after the advent of Islam and its western culture, the fashion arose, within the birch-bark area of Northern India to use birch-bark in imitation of paper, and to give to birch-bark books the shape of the paper books of the West. The Indian *póthi* shape of the birch-bark Bower Manuscript, therefore, is corroborative evidence of the great antiquity of that manuscript,—a point which will be discussed in detail in Chapter III.

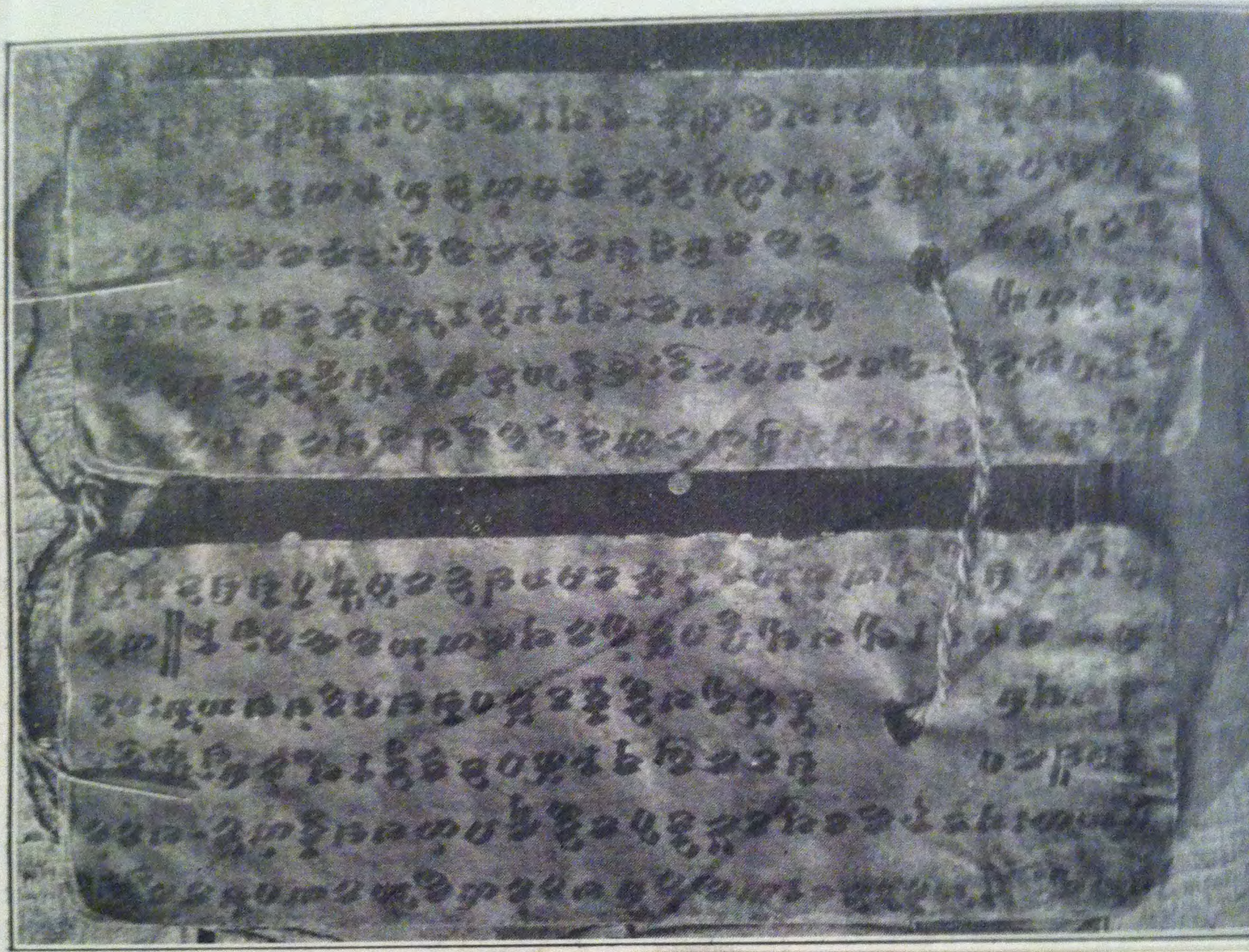
Fig. 7.

The same *Póthi*. (Opened.)

The birch-bark leaves of the Bower Manuscript, as already intimated, are of two different sizes. The leaves of Parts I-III, IV, V, and VII are considerably larger, both in length and breadth, than those of Part VI. The former measure about $11\frac{1}{2}$ by $2\frac{1}{2}$ inches; the latter, about 9 by 2 inches. Besides the size of the leaves, there is another point which differentiates the two portions of the collective manuscript from each other. The birch bark of the larger portion is of a quality much inferior to that

as the shape of the palm-leaf which determined the n

Fig. 7.



The same Pôthî. (Opened.)

used as writing material, necessarily determined the leaves of the *pôthî*. The birch tree (*Betula ul* is indigenous in the extreme North of India (e.g. tree (Talipat, *Corypha umbraculifera*) is peculiar to the S ion of the Indian *pôthî* must have originated in the S nal "book" of the North of India must have been wri rk. As a fact the oldest Indian "book" on birch-bark.

of the smaller portion (Part VI). The former is hard and brittle, and apt to break if roughly handled; while the latter is soft and tough and can readily be bent. The difference may be due to the age of the tree from which the bark was taken, as well as to the thoroughness of the process (probably boiling in milk or water) by which the bark was prepared for the reception of writing. Moreover, some of the leaves used in the larger portion were in a defective condition at the time when they were inscribed, while the leaves of Part VI were, and are still, in perfect order. For example, in Part I a large portion in the upper right corner of the third folio (see Plate III), affecting no less than six lines, had broken away, before the leaf was inscribed; for nothing of the text is wanting. Similarly, in Part II, large holes had broken into folios 25 and 26 (Plates XXVII and XXVIII), before they were written on. On the other hand, the defects in folios 9 and 12 of the same Part (Plates XIV and XVII) only occurred after those leaves had been inscribed; for some portion of the text is lost. But there is also another cause to which the defective condition of the leaf is occasionally due, *viz.*, exfoliation. Birch-bark, as writing material, is of varying thickness, consisting of several layers of periderm of extreme tenuity, numbering from two to twelve, or even more:⁴⁷ one layer by itself would be too tenuous to be inscribed. When the bark is properly prepared, the process renders the natural adhesion of the layers more durable; but when it is imperfectly prepared, or when it is taken from a too old tree, or from an unsuitable part of the tree, the surface layers are apt to flake off, when the bark becomes thoroughly dry. In that condition, a leaf is unsuitable for writing. This may be illustrated by the blank reverse of the fourth folio in Part IV (Plate XLI), which distinctly shows the surface in process of exfoliation; and it was, no doubt, for that reason that the scribe abstained from writing on it. For the same reason, apparently, the obverse of the fourth folio of Part V (Plate XLVI) was left blank.⁴⁸ On the other hand, occasionally exfoliation took place after the leaf had been inscribed. Thus on the left of the reverse side of the thirty-third folio (Plate XXXIV)⁴⁹ of Part II, about one-fourth of the surface layer has flaked off, carrying with it a large portion of the text; and the same injury has befallen a smaller portion of the reverse of the twenty-ninth folio (Plate XXXI). On the obverse side of the sixth folio of Part V we have another example of the same phenomenon; and in the case of folio 1 of Part VII (Plate LIII) the whole of the inscribed top layer of the obverse side has flaked off. In the third place, much of the bark, used in the larger portion, is full of faults in its texture. It appears to have been taken from an unsuitable part of the tree, producing a rough and knotty surface, unserviceable for writing. This may be seen by reference, *e.g.*, to the reverses of the first folio of Part II (Plate VI) and the second folio of Part IV (Plate XXXIX), about one-half of which has been left blank. It is

⁴⁷ Thus, of the five folios of Part I, the first consists of two layers, the four others of four layers each (*Journal, As. Soc. Beng.*, Vol. LX, 1891, p. 136). Of the five folios of Part IV, the second has at least twelve, and the other, four layers each (*Indian Antiquary*, Vol. XXI, 1891, pp. 129, 130). Of the four folios of Part VI, the first has three layers, the third, six, and the two others, four each. Of course with good birch-bark it would not have been necessary to have a large number of layers to render the bark inscribable: it was the inferior quality of most of the bark which prevented a separation of the layers in unlacerated portions of sufficient dimensions to admit of

being used as writing material (see *Journal, As. Soc. Beng.*, Vol. LX, 1891, Part I, p. 137).

⁴⁸ The blankness is not due to the spots: that need not have interfered, as may be seen from the obverse of folio 2 of Part III (Plate XXXVI).—The leaves and plates of Part V are wrongly placed; for "Leaf 6, Plate XLVIII" read "Leaf 1, Plate XLIII", and shift the others accordingly.

⁴⁹ The number 33 which is seen on the peeled off surface on Plate XXXIV is not original: it was inscribed by myself for guidance.

also illustrated by the fact that sometimes when the scribe attempted to write across a fault, his letters would form only very badly, as, *e.g.*, in Part I, folio 5b² (Plate V), where the syllable *lā* (of *ēlā*) is almost illegible; or they would not form at all, and the writer was obliged to abandon a half finished letter, and trace it anew on the other side of the fault, thus leaving a more or less extended gap in his line. Thus in Part I, folio 3a⁷ (Plate III) we have *vimi[śa]śrō*, folio 3b⁶, *jī[va]ritukāmah*, folio 5b² (Plate V), *vya[va]vāyāchcha*, where the abandoned half-finished letters are indicated by being placed within brackets (Journal, As. Soc. Beng., 1891, Vol. LX, Part I, p. 137). Other examples are in Part II, fols. 7, 8, 22, 27, 29, etc. (Plates XII, XIII, XXIV, XXIX, XXXI), in Part III, folio 3 (Plate XXXVI), and in Part V, folios 2 and 6 (Plates XLIV and XLVIII), which show large uninscribed places. None of these defects is seen in the bark of Part VI, which is of the proper texture, and has been properly prepared.

The fact of the larger portion of the Bower Manuscript being written on birch-bark of such an inferior quality, of course, suggests the enquiry as to what may have been the cause of it. So much seems obvious that, as Kashmir and Udyāna are the lands of the birch and birch-bark, the scribes (on their number, see Chapter III) of the larger portion of the Bower Manuscript would not have had recourse to an inferior quality of bark, if at the time of writing it, they had not been, for some reason, in a position which made it impracticable for them to procure a supply of good bark. The most obvious explanation that suggests itself, of course, is that when they wrote their manuscript, they were already settled in Kuchar, where fresh birch-bark prepared for writing was not readily procurable, for which reason they were reduced to the necessity of using up what inferior portion remained to them of the store of birch-bark which they may have originally brought with them from their home in north-western India. But by the time that Part VI came to be written, a fresh supply of good and well-prepared bark had been procured.

One of the indications of the collective character of the Bower Manuscript, as has been stated, is the mode of pagination which it exhibits. For the leaves of each Part are numbered separately, so far as can be judged from the numbering where it is preserved. In Indian *pōthīs* the practice is to number, not the pages, but the leaves; and the numbers are placed on the left-hand margin, either on the obverse or the reverse side of the leaf. In northern Indian manuscripts it is always the reverse side which is thus numbered, while in southern manuscripts, it is the obverse.⁵⁰ In Parts IV and V, the margins are so imperfectly preserved that it must remain uncertain whether they ever bore any numbers. The practice of numbering the folios, however, is so general in Indian manuscripts that, on the whole, the probability is in favour of its having once existed in those Parts at the time when the margins were entire. In Parts I—III and VII the margins of most leaves are fairly well preserved, and they show the usual pagination on the reverse side of the leaf, thus pointing to a northern locality as their place of origin. Part VI, the margins of which are well preserved, shows pagination throughout; and, what is noticeable, the numbers are on the obverse side of the leaves. That fact points to a southern place of origin, and this indication is confirmed by others which will be fully discussed in Chapter III.

⁵⁰ See the *Vienna Oriental Journal*, Vol. VI, p. 261, quoted in Chapter III, p. xxxii.

The total of the existing leaves of the Bower Manuscript is fifty-one. But unfortunately the more important portion of it, Parts I—III, which treats of medicine, is incomplete. Part I ends quite abruptly with the fifth folio. How many more may have completed the text, it is impossible to conjecture from the context. The existing five leaves are numbered consecutively from 1 to 5. The obverse of the first leaf, as usual in Indian *póthis*, is left blank. In the left-hand margin of the reverse of the third leaf, there appear, below the ordinary pagination 3, two other signs of doubtful value. If they are to be read as separate numeral figures, they might be 51; or if they are to be read as a single figure, it might be an imperfectly (*i.e.*, discontinuously) written 40 or 70. But in either case their purport is a puzzle.⁵¹ Part II also is a fragment; for it ends, apparently abruptly, with the 33rd folio somewhere in the fourteenth chapter. Moreover, the two final chapters, the fifteenth and sixteenth, which are announced in the introduction (verses 8 and 9, p. 77) are entirely missing (see note 497 on p. 180*b*). In addition, the entire folios 20, 21 and 30, and the major portion of folios 16 and 17 are missing. Also, as previously stated (p. xix), smaller portions are missing, by fracture in folios 9 and 12, and by exfoliation in the reverses of folios 29 and 33. The total number of the existing leaves, inclusive of the two fragmentary folios 16 and 17, is thirty. In the case of most of these existing leaves, *viz.*, in folios 2—10, 12, 13, 15, 22—26, 31 and 32 (total 19), the ordinary pagination is fully preserved. It is only partially preserved in the five folios 16, 18, 19, 28, 29; and it is entirely lost, by fracture or exfoliation of the margin, in the six folios 1, 11, 14, 17, 27, 33. On folio 13 (Plate XVIII) there is an indistinct mark between the figures for 10 and 3, apparently the cancellation of another wrongly inscribed figure. The pagination is placed as a rule, in the middle of the margin, but in folios 25, 31, 32 it appears in the top of the margin, facing the third or fourth line of the text; and it must have occupied the same position on folios 1, 11, 27, where the top of the margin is mutilated.⁵²

Part III, again, is a mere fragment. Its commencement is marked, as usual, by the sacred symbol of *óm* on the obverse of the first leaf; but it breaks off abruptly on the obverse of the fourth leaf. But the noteworthy circumstance is that it breaks off, not at the bottom, but in the middle of that side of the leaf. This circumstance certainly suggests that the original scribe left off writing at that point, and never completed his work. Subsequently, the manuscript came into the possession of the writer of Part IV, who commenced the writing of that Part on what was then the blank reverse of the fourth folio of Part III. Ultimately the whole manuscript, that is, the unfinished Part III and the subsequently added Part IV, came into the possession of a third person, *viz.*, the writer of Parts V and VII, who proceeded to write a remark of his own on the space left blank by the original writer on the lower portion of the obverse side of the fourth folio of Part III (Plate XXXVIII). This curious case will be the subject of further consideration with additional details in Chapter III (p. xxxvi), where it will be shown that the writer of Part III must have written also Parts I and II. In connection with this latter circumstance the query suggests itself whether Parts I and II, no less than Part III, might not have been incomplete at the time when Part III came into the

⁵¹ The figures, or figure, cannot well refer to the number of the corresponding verse in the text, as doubtfully suggested in note 57 on p. 5 of my edition.

⁵² The numbers marked on the reverses of folios 17, 21 and 33 are not original, but were inscribed by myself for guidance.

possession of the writer of Parts V-VII; that is to say, that already at that time Parts I and II extended no further than they do at present. It might be surmised that the scribe who made the copies of Parts I-III died before he had finished his task, and that his unfinished copies passed on, in turn, to the writers, or owners, of Part IV and Parts V and VII. There is nothing in the Parts concerned to decide one way or the other about this hypothesis, but in any case the hypothesis has no concern whatever with the losses of fols. 21, 22 and 30 of Part II, or the fractures (*e.g.*, of fols. 16 and 17) and exfoliations which have been referred to. For injuries of an exactly similar kind are observable in every one of the Parts of the Bower Manuscript, with the exception of Part VI which is written on birch-bark of a superior and durable quality. All these injuries occurred at a date subsequent to the hypothetical transmission of Parts I and II to its later owners. The second of the four folios of Part III is the only one which bears pagination. In the others the margin is defective.

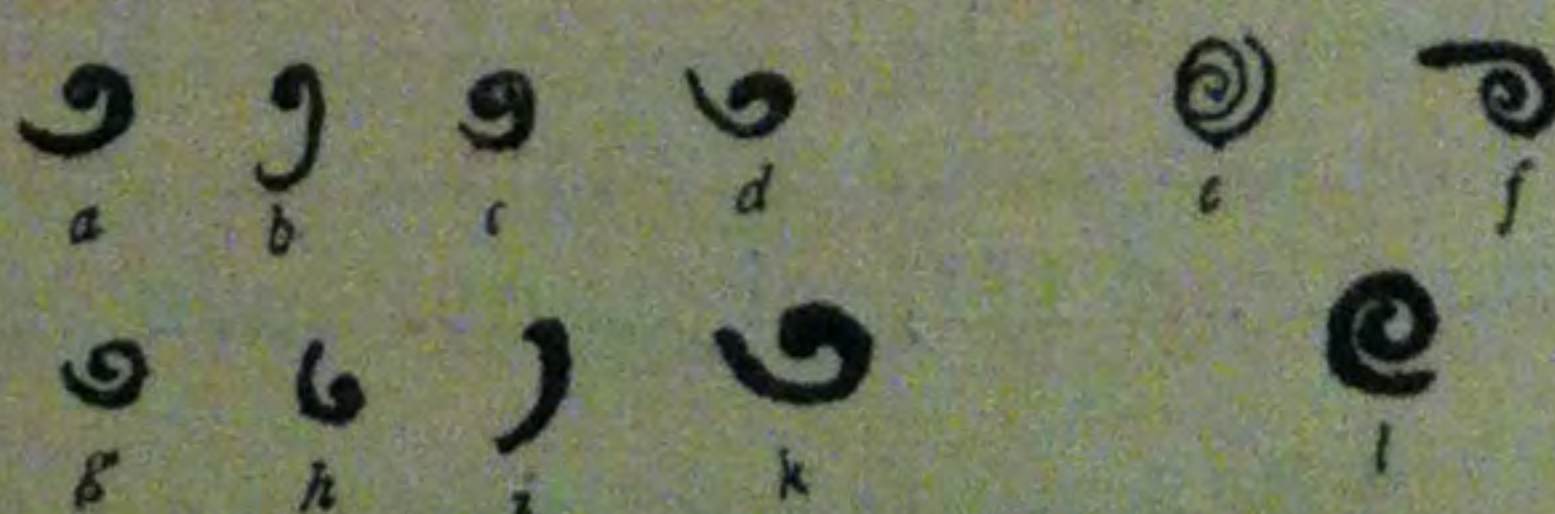
Of Parts IV and V, which are two tracts on divination, the former is practically complete,⁵³ while the latter seems to be considerably defective (see Chapter VIII). Neither of them shows any pagination. As they are very small manuscripts, of five (strictly four and a half) and six folios respectively, it is possible that they never had any; but as the margins are more or less defective, the numbers may be lost; and this alternative seems more probable. The obverse of the first leaf of Part V is blank, just as in the case of Part I. Its reverse is inscribed only with the introduction to the treatise, which does not cover the whole of its surface. It bears only five lines, and there is a blank space left, sufficient for, at least, one additional line: all the other leaves have six or seven lines to the page.

Part VI, which is a treatise on a charm against snake bite, is complete. Being written on a superior quality of birch-bark, it is the best preserved portion of the Bower Manuscript. The left-hand margins of all its four folios are in good condition, and bear the pagination, 1 to 4, on the obverse sides. The manuscript commences with the usual symbol for *ōm* on the obverse of the first leaf, and ends with the usual Buddhist terminal salutations and the double stroke (Chapter IV, p. xxxviii) on the top of the reverse of the fourth folio.

Part VII, which contains a portion of the same charm against snake bite (see Chapter III, pp. xxx and xxxvi and Chapter VIII) is defective. It consists of two, much damaged, leaves, the first of which, on its reverse side, bears the pagination 1. The obverse has lost its inscribed surface layer of bark (p. xix), and with it the commencement of the charm. The pagination of the second leaf is lost with the broken-off margin.

Indian manuscripts, or records, as a rule, commence with some benedictory word such as *siddham*, success, or *svasti*, hail, or with the sacred particle *ōm*. The last mentioned is almost universally used at the present day. It may be either written in full, or indicated by a symbol. The latter takes the form of a spiral which may turn either to the right or the left (Fig. 8) and which is probably a conventional representation of the sacred *śaṃkha* or conch shell. The dextorse form may be seen on the first leaf of Part I (Fig. 8*a*), Part II (Fig. 8*b* and *c*), and Part III (Fig. 8*d*), while the sinistorse form appears on the first leaf of Part IV (Fig. 8*e*), and

Fig. 8.

Modes of writing *ōm*.

⁵³ On Part IV see my article in the *Journal*, ASB., 1892, p. 129.

Part VI (Fig. 8f). In Parts V and VII it is lost through the damage suffered by their first folios. In all the Parts, except the second, the symbol occupies the usual position facing the first line of the text; but in Part II it appears in the more unusual position, on the left-hand margin, opposite the third line of writing, exactly as it is seen in the two copper-plate grants of Ananta Varman, dateable probably in the sixth century A.D. (fig. 8g, h), shown in Dr. Fleet's *Gupta Inscriptions*, pp. 220 and 226, Plates xxxB and xxxiA. Among the dated northern Indian epigraphical records of the Gupta period, the earliest known examples of the dextrorse form of the symbol are those of the year 448-9 A.D. in a stone inscription of Kumâra Gupta I (Fig. 8i, see *ibid.*, p. 45, Plate viA), and of the year 493-4 A.D. in a copper-plate grant of Jayanâtha (Fig. 8k, see *ibid.*, p. 120, Plate xvi). The earliest known example of the sinistrorse form occurs in a copper-plate grant of Mahâ-sadêvarâja, of an unknown though early date (Fig. 8l, *ibid.*, p. 198, Plate xxvii), and apparently, though mutilated, also in the Bodhgayâ inscriptions, of 588 A.D. (*ibid.*, Plate xliA and B). Of course, these dates are not sufficiently numerous to settle the exact beginning and end of the period of the use of the two forms; but on the whole the sinistrorse form seems to be somewhat later in origin. Curiously enough, the symbol for *ôm*, in its dextrorse form, is found also on the obverse side of the 32nd leaf of Part II, on the left margin, opposite the second line of writing. How it comes to be there is, at present, not apparent.

As already observed, the typical Indian *pôthî* is provided with a hole for the passage of the binding string. At the present day, the hole is placed exactly in the middle of the leaves; and it has been so during many centuries past. In the Bower Manuscript the hole is placed in the left side, about the middle of the left half of the leaf; about $3\frac{1}{4}$ inches from the left margin of the larger, and $2\frac{1}{4}$ inches, in the case of the smaller folios. There are reasons to believe that the latter practice was that which prevailed in ancient India. In the old Indian copper-plate grants, the copper leaves are strung together on a copper ring which passes through a hole in the left side of the leaves.⁵⁴ The oldest known copper-plates of this kind are those of the Kondaṃudi grant of Jayavarman (*Epigraphia Indica*, Vol. VI, p. 316) and the Pallava grants of King Śivaskanda Varman (*ibid.*, Vol. I, pp. 4-6, 397; Vol. VI, p. 84), which, on palæographic and linguistic grounds, must be referred to the second and third centuries A.D. respectively.⁵⁵ They have their ring-hole near the middle of the left half-side. They are all South Indian grants; and seeing that, as already pointed out, the oblong form of the

⁵⁴ This is the general practice; but there are exceptions in various directions. Thus exceptionally the hole is found in the bottom margin. A very old example, from the third century A.D., is the Pallava grant of Queen Chârudêvi (*Epigraphia Indica*, Vol. VIII, p. 141). Two other examples of the 7th century are the Chiplun grant of Pulikêsin II (*ib.*, Vol. III, p. 52), and the Nausârî grant of Śryâsraya (*ib.*, Vol. VIII, p. 232). Occasionally there are two holes at the bottom, e.g., in the 5th century the Ganesgad grant of Dhruvasêna I (*ib.*, Vol. III, p. 320) and the Mâliyâ grant of Dharaśêna II (Fleet's *Gupta Inscriptions*, No. 38, p. 168, Plate xxiv); in the 7th century the Saṃkhêda grants of Dadda III (*Epigraphia Indica*, Vol. II, p. 20 and Vol. V, p. 40), and the Nogawa grant of Dhruvasêna II (*ib.*, Vol. VIII, p. 192). Another early practice, which however appears to be limited to a particular Central Indian province, is to place the hole in the

top margin of the plates, as in the Khôh grants of Hastin and other princes (Fleet's *Gupta Inscriptions* Nos. 22, 25, 27, 28, 30, 31, Plates xiii, xv, xvii, xx). Lastly the hole is occasionally found on the right side. The earliest example of this appears to be the Paithân grant of the Râshtrakûṭa king Gôvinda III, of 794 A.D. (*Epigraphia Indica*, Vol. III, p. 106). But the overwhelmingly favourite practice throughout ancient India, and at all times, is to place the hole on the left side.

⁵⁵ These grants are written in Prâkrit, and the spelling in Jayavarman's grant (single for double consonants), as Professor Hultzsch has pointed out (*Epigraphia Indica*, Vol. VI, p. 316) is exactly like that in the records of the Andhra kings Gantamîputra and Vaśishthîputra, whose dates are c. 117-137 A.D. The spelling in Śivaskanda's grants has double consonants, but the writing otherwise resembles that of Jayavarman's grant. Accordingly they can be dated, at most, about a century later

earliest birch-bark *póthi* of Northern India, as seen in the Bower Manuscript, is an imitation of the palm-leaf *póthi* of Southern India, it may be concluded that the placement of the string-hole in southern manuscript *póthi* was the same as in the southern copper-plate grants, and that the practice of placing the string-hole in the middle of the left half of the manuscript was adopted by the northern scribes from their southern brethren, whom, in fact, they imitated in the whole mode of fashioning the *póthi*. All the earliest birch-bark manuscripts of the fourth and fifth centuries show their string-hole on the left side. But as birch-bark (as well as palm-leaf) is a more or less fragile material, the practice soon arose for the greater safety of the leaves, to make two holes, in the right and left halves, at corresponding distances from the right and left margins. The earliest known examples of this practice are presented in the Horiuzi Manuscript (see *Anecdota Oxoniensia*, Vol. I, Part III, Plate I) and the two Nepalese manuscripts of the Cambridge Collection, Nos. 1702 and 1409 (see Bendall's Catalogue, Plate I, Figs. 1 and 2), all of which probably belong to the sixth century. Still later, the practice arose of replacing the two holes by one hole in the middle of the leaves. The existence of this practice is recorded by Alberuni in the eleventh century, who says (Professor Sachau's Translation of Alberuni's India, Vol. I, p. 176) that "the Indians bind a book of palm-leaves together by a cord on which they are arranged, the cord going through all the leaves by a hole in the middle of each." The hole was not at first in the exact middle, but—probably a modified survival of the ancient practice—slightly more to the left, as seen, *e.g.*, in the Nepalese manuscript No. XXI (Palæographic Society), which is dated in 1015 A.D. Still later, and in the present day, the hole appears in the exact middle of the leaves. The peculiar position of the string-hole, in the middle of the left side of the Bower Manuscript, therefore, is an evidence making for the extreme antiquity of the manuscript.⁵⁶

Unfortunately it has never been recorded in what condition the Bower Manuscript was when it was received by Colonel Waterhouse in Calcutta in September 1890. When it came into my hands in February 1891, the leaves of the *póthi* were enclosed between its two wooden boards, and a string run through them. In order to examine the leaves, I cut the string, and, on doing so, discovered that they were not arranged in their proper order, but that the leaves of the several parts were mixed up (see *Proceedings*, Asiatic Society of Bengal, 1891, p. 55). How they came into this state of disorder is not known. It does not seem probable that they were so originally when the manuscript was discovered by its Kuchari finders. The people who enshrined it in its receptacle in the stupa may be assumed to have been able to read it; and they would not have enshrined it in a disorderly condition. But from the time of its discovery, it passed through the hands of, at least, four different persons, all of whom may be assumed with certainty to have cut or unloosed the string to satisfy their curiosity, and none of whom knew, or could read the characters. In the case of Babu Sarat Chandra Das this is certain; for he stated himself to Colonel Waterhouse who had first given him the manuscript to examine, that he had failed to decipher it (see *Proceedings*, As. Soc. Beng., 1890, pp. 222-3). Moreover two of the leaves were photographed (see *ibid.*, Plate III) by Colonel Waterhouse, before ever the manuscript came into my hands. It may, therefore, be

⁵⁶ Revised from the statement in my *Report on the British Collection of Central Asian Antiquities* in Extra Number 1 to the Journal, As. Soc. Beng., Vol. LXX, Part I, for 1901, pp. 7, 8.

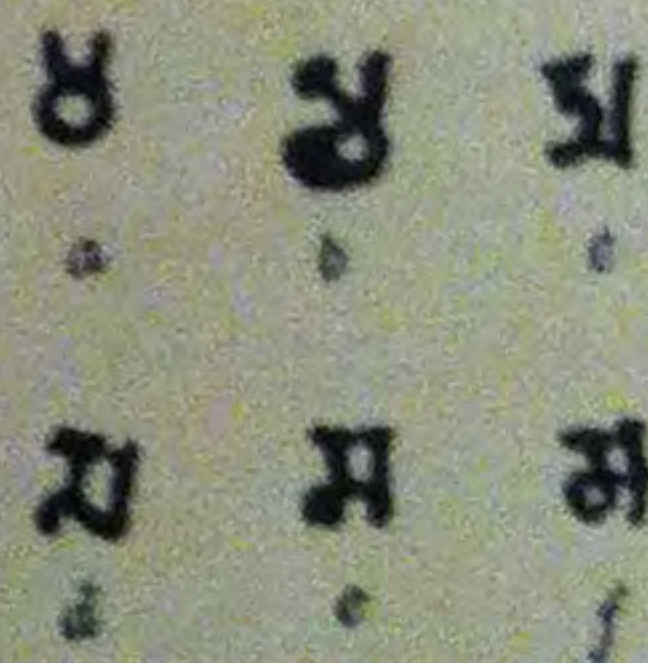
concluded with good reason that the disorderly condition of the manuscript arose only in the course of its passage through the several hands; and it seems not at all improbable that the serious damage done to the folios 16 and 17 of Part II may be due to incautious handling by the original Turki finders in Kuchar. After each examination the leaves seem to have been bound together again by a string, whether the same original string or any other may be doubtful. That they were in this bound condition when they reached the hands of Colonel Waterhouse seems to be expressly stated in the original report, published in the November *Proceedings* of the Asiatic Society of Bengal (1890, p. 223.)

CHAPTER III.—THE SCRIPT, THE SCRIBES, AND THEIR USAGES IN THE BOWER MANUSCRIPT.

A glance at the Tables which illustrate this chapter shows at once that all the seven Parts of the Bower Manuscript are written in an essentially identical script. Considering the fact, which will be proved in the sequel, of a diversity of scribes, the identity of their script is strikingly shown by the occurrence of the same slight variations in the forms of such consonants as *k*, *r* and *s* (Table I), and such vowels as *i*, *u*, and *ü* (Table II, Nos. 5, 7-10). This script is that which prevailed in Northern India from the fourth to the sixth centuries A. D. (both inclusive). It is now generally known as the Gupta script, because its prevalence coincided with the rule of the (Early) Gupta Emperors in whose epigraphic records it is employed. Most of these records, inscribed during the period of the Gupta Empire, are collected in the third volume of the *Corpus Inscriptionum Indicarum*.⁵⁷ The facsimile Plates, accompanying that volume may be consulted for the purpose of comparing the script used in the Gupta records with that seen in the several Parts of the Bower Manuscript.

During the period of approximately three centuries of its prevalence the Gupta script shows two distinct types, a southern and a northern, their areas being separated by a line running in a north-easterly direction, roughly between N. Lat. 24° and 22°. At Mandasor (Lat. 24° 3'), Eran (Lat. 24° 5'), and Udayagiri (Lat. 23° 32'), there exist inscriptions, side by side, in both types of the script. From the dates of these inscriptions⁵⁸ it will be seen that, in every case, the records of the southern are earlier than those of the northern type,—a circumstance which points to the gradual advance southwards of the fashion of writing in the northern style. For practical purposes the most useful test for distinguishing the two types is the form of the letter *m* (Fig. 9). Here (a) shows the original form of the letter, in the so-called Asoka script. Gradually the curve at the base was flattened, and the point of crossing shifted, more or less, to the right. In this form (b) the character was preserved in the southern type of the script. In the north-west of India the tendency of straightening the curves was more pronounced. At first it affected only the right side of the letter. This side was made quite straight; and in consequence thereof it was entirely severed from the crossing point. Thus arose the earlier northern Gupta form (c). Soon also the left side was straightened, producing the alternative form (d). In these two forms

Fig. 9.

Forms of the
letter *m*.

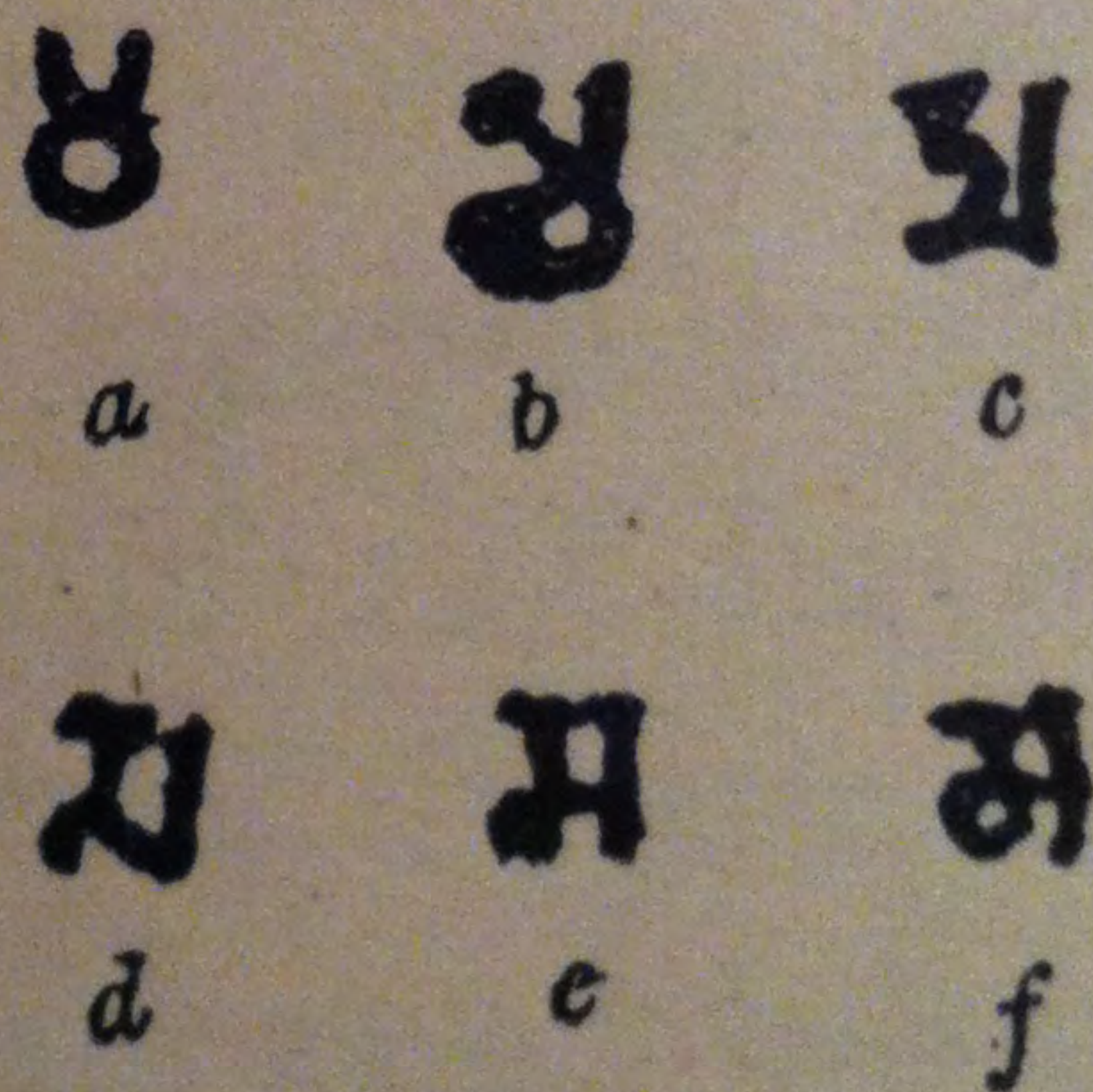
⁵⁷ Volume III, *Inscriptions of the Early Gupta Kings and their Successors*, edited by Dr. J. F. Fleet, C.I.E., in 1888. A few additional inscriptions, discovered after that date are published in the *Epigraphia Indica*. These two publications are quoted in the sequel as F.G.I., and E.I. respectively.

⁵⁸ Mandasor, northern type, F.G.I., Nos. 33, 34, 35, dated c. 530-533 A.D., and southern type, F.G.I., No. 18, dated 473, A.D. Eran, northern, F.G.I., Nos. 19, 20, 36, dated 468, 484, 508 A.D., and southern, F.G.I., No. 2, dated 370 A.D. Udayagiri, northern, F.G.I., No. 61, dated 425 A.D., and southern, F.G.I., No. 3, dated 401 A.D.

their areas being separated by a line
 N. Lat. 24° and 22° . At Manda-
 t. $23^{\circ} 32'$), there exist inscriptions,
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 3 A.D., and southern type, F.G.I., No. 18, dated
 . Eran, northern

TABLE I ALPHABET

	PART I		PART II		PART III		PART IV		PART V		PART VI		PART VII	
¹ A	ਅ		ਅ		ਅ		ਅ		ਅ	ਅ	ਅ	ਅ	ਅ	
²									ਅ		ਅ	ਅ		
Ā	ਐ		ਐ		ਐ		ਐ		ਐ		ਐ		ਐ	
I	ੴ		ੴ		ੴ		ੴ		ੴ	ੴ	ੴ		ੴ	ੴ
Ī	ਐ		ਐ				ਐ		ਐ					
U			ਊ		ਊ		ਊ		ਊ		ਊ		ਊ	
Ū			ਊ								ਊ			
Ri	ੴ		ੴ		ੴ		ੴ							
E	ੴ	ੴ	ੴ		ੴ		ੴ		ੴ		ੴ		ੴ	
Ai			ੴ				ੴ							
O			ੴ								ੴ			
Au	ੴ		ੴ											
¹ K	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ	ਕ
²			ਕ	ਕ										
Kh	ਖ	ਖ	ਖ		ਖ		ਖ		ਖ		ਖ		ਖ	
G	ਗ		ਗ		ਗ		ਗ		ਗ		ਗ		ਗ	ਗ
Gh	ਘ		ਘ		ਘ		ਘ		ਘ		ਘ		ਘ	
Ṇ	ਨ		ਨ		ਨ									
Ch	ਚ	ਚ	ਚ	ਚ	ਚ	ਚ	ਚ		ਚ		ਚ		ਚ	
Chh	ਛ		ਛ				ਛ		ਛ		ਛ			
J	ਜ	ਜ	ਜ	ਜ	ਜ		ਜ		ਜ	ਜ	ਜ		ਜ	
Jh	ਝ	ਝ												
Ṇ	ਞ	ਞ	ਞ	ਞ	ਞ		ਞ	ਞ	ਞ					
T	ਟ	ਟ	ਟ		ਟ		ਟ		ਟ		ਟ		ਟ	
Th	ਠ		ਠ		ਠ									
D	ਡ		ਡ		ਡ				ਡ		ਡ		ਡ	
Dh	ਢ		ਢ		ਢ						ਢ			

TABLE I ALPHABET

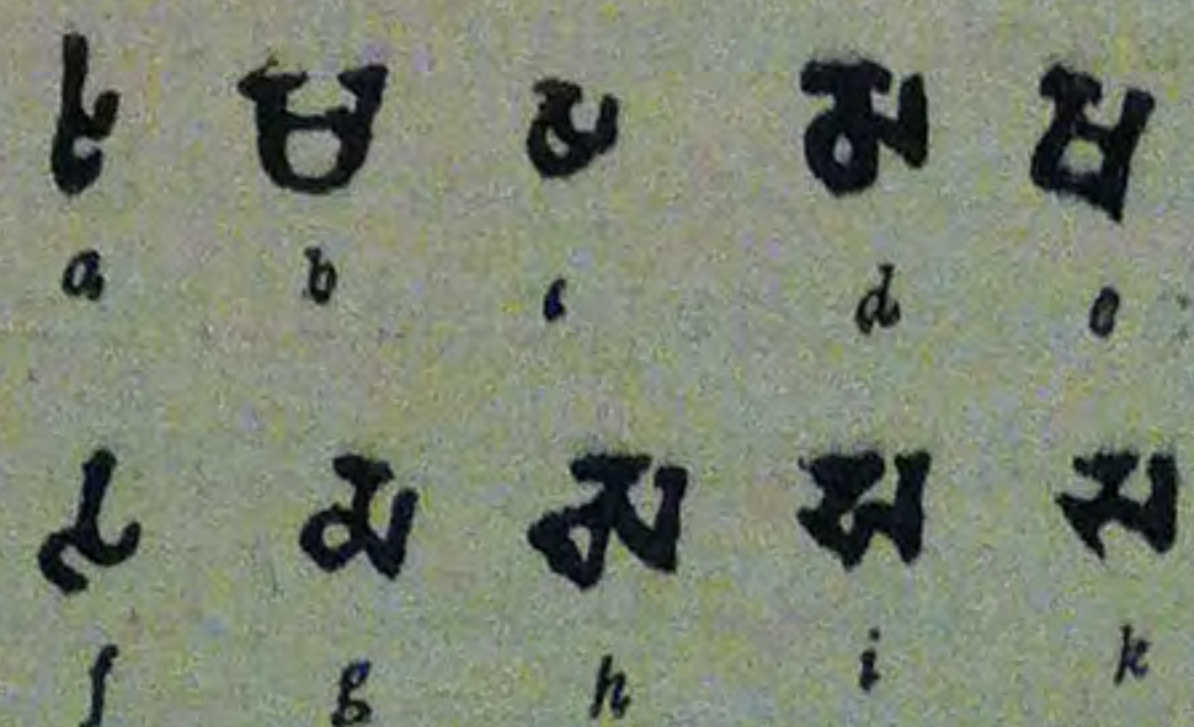
	PART I		PART II		PART III		PART IV		PART V		PART VI		PART VII	
N	ਅ		ਅ		ਅ		ਅ		ਅ		ਅ		ਅ	
T	ਨ		ਨ		ਨ		ਨ	ਨ	ਨ	ਨ	ਨ	ਨ	ਨ	
Th	ਥ		ਥ		ਥ		ਥ		ਥ	ਥ	ਥ		ਥ	
D	ੲ		ੲ		ੲ		ੲ		ੲ		ੲ		ੲ	
Dh	ਠ		ਠ		ਠ		ਠ		ਠ		ਠ		ਠ	
N	ਨ		ਨ		ਨ		ਨ	ਨ	ਨ		ਨ	ਨ	ਨ	ਨ
P	ਪ		ਪ		ਪ		ਪ		ਪ	ਪ	ਪ		ਪ	
Ph	ਘ		ਘ		ਘ		ਘ		ਘ		ਘ			
B	ਬ	ਬ	ਬ		ਬ		ਬ	ਬ	ਬ		ਬ		ਬ	
Bh	ਭ		ਭ		ਭ		ਭ		ਭ		ਭ		ਭ	
M	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ	ਮ		ਮ	
¹ Y	ਯ	ਯ	ਯ	ਯ	ਯ	ਯ	ਯ	ਯ						
²	ਯ	ਯ	ਯ	ਯ	ਯ	ਯ			ਯ	ਯ	ਯ	ਯ	ਯ	
¹ R	ੲ	ੲ	ੲ	ੲ	ੲ	ੲ	ੲ			ੲ	ੲ	ੲ	ੲ	ੲ
²	ੲ		ੲ		ੲ				ੲ		ੲ			
L	ਲ		ਲ		ਲ		ਲ		ਲ		ਲ		ਲ	
V	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ	ਵ		ਵ	
¹ Ś	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	
²	ਸ਼		ਸ਼		ਸ਼						ਸ਼	ਸ਼	ਸ਼	
S	ਸ		ਸ		ਸ		ਸ		ਸ		ਸ		ਸ	
¹ S	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	ਸ਼	
²	ਸ਼				ਸ਼		ਸ਼		ਸ਼		ਸ਼		ਸ਼	
H	ਹ		ਹ		ਹ		ਹ		ਹ		ਹ		ਹ	
H	ਹੁ:		ਹੁ:	ਹੁ:	ਹੁ:		ਹੁ:		ਹੁ:		ਹੁ:		ਹੁ:	
H				ਹੁ:		ਹੁ:								
H										ਹੁ:		ਹੁ:		
M	ਮੁ	ਮੁ	ਮੁ	ਮੁ	ਮੁ	ਮੁ	ਮੁ	ਮੁ	ਮੁ		ਮੁ		ਮੁ	

the character for *m* prevailed throughout the Gupta period (Table I), gradually spreading eastward over the whole of Northern India. From the second of the northern Gupta forms of *m*, developed, at a later time, the Nāgarī form (*e*), and its ringleted variety (*f*), by the production of the right lateral below the base line.

The origin of the northern form of the Gupta *m* must be placed in the earlier half of the fourth century A.D. The starting point of the Gupta empire (Pāṭaliputra) was in the East. On the coins and in the records of Samudra Gupta the older form of *m*, with its curved sides (Fig. 9, *a b*) is still exclusively prevalent. But with his son Chandragupta II, who added the West to the empire, a total change takes place. All his coins and records show only the forms of *m* with straight sides (Fig. 9, *c d*). He commenced to reign about 375 A.D.; and he completed his conquest of the West about 395 A.D. His earliest known dated inscription of 407 A.D. (F.G.I., No. 7, p. 36) shows the straight-sided *m*. Its locality Gadhwā, Lat. 80° 38', is just within the eastern area. Another of his inscriptions, within the western area, at Mathurā, Lat. 77° 43', which also shows the straight-sided *m* (F.G.I., No. 4, p. 25, Plate iii A) is mutilated and hence undated; but it may be some twenty years older. Anyhow, the fact that the straight-sided *m* shows no signs of a gradual origination or introduction, but with Chandragupta's western conquests, all at once, entirely supersedes the older curved-sided form of *m* in the records throughout the northern portion of the Gupta empire, proves that, at the time of that conquest, it must have been the established and prevailing fashion of writing *m* in the north-west of India. The beginning and growth of that fashion in the North-west itself, therefore, may with good reason be placed in the earlier half of the fourth century, though, of course, in calligraphic records of a particularly ornate kind, such as the Bijayagadh inscriptions of about 372 A.D. (F.G.I., Nos. 58, 59, pp. 251-2, Plate xxxvi B, C), the old form of *m* with its angular or curved sides, might tend to survive for some longer time. The only form of *m*, prevailing throughout the whole of the Bower Manuscript, in its calligraphically as well as cursively written portions, is the earlier of the two north-western forms, with its right side straight, but the left side twisted (Fig. 9, *c*; and Table I). So far, therefore, the graphic indications of the manuscript point to some time within the fourth century A.D. At any rate, they need not carry its date back of that century.

The northern type of the Gupta script, again, is divisible into two distinctly marked varieties, an eastern and a western. With regard to this division the most useful test letter is the character for the cerebral sibilant *śh*, as compared with the character for the dental sibilant *s*. The original forms, in the Aśoka alphabet, of these two characters are shown in Fig. 10, *a* and *f* respectively. The form of the former was soon modified, as in (*b*), by closing up the lower semicircle. In the East, gradually that semicircle was made to bulge out on the left, as in (*c*), and finally reduced to a small ringlet, as in (*d*), while in the West it was simply more or less angularized, as in (*e*). On the other hand, in the case of the dental *s* (*f*), its basal curve was angularized in the East, and at the same time its tail closed up to form a ringlet, as in (*g*), while in the West the whole character was angularized, a triangle taking the place of the ringlet, as in (*h*). The final result of

Fig. 10.

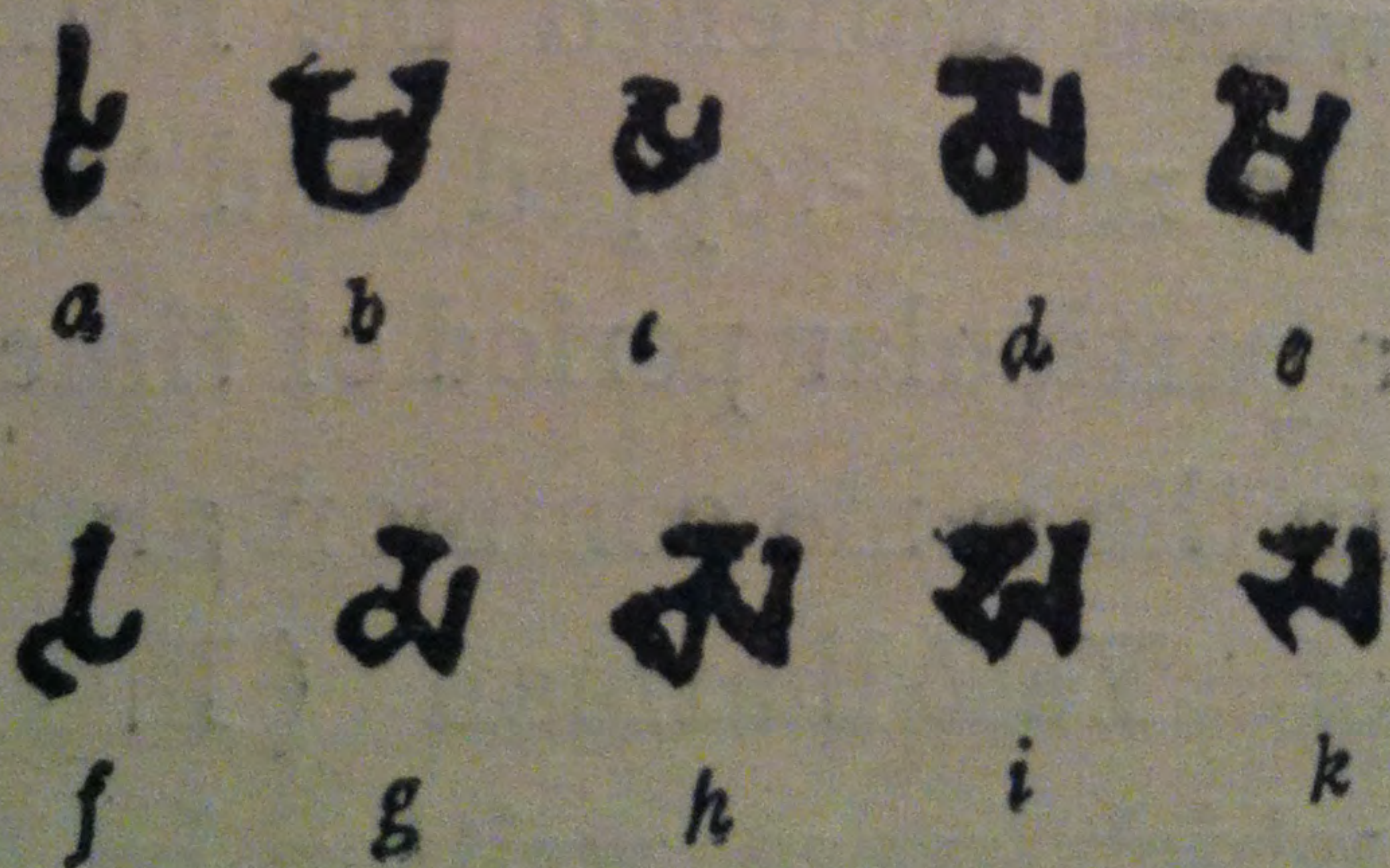


Forms of the cerebral and dental sibilants.

... 251-2, Plate
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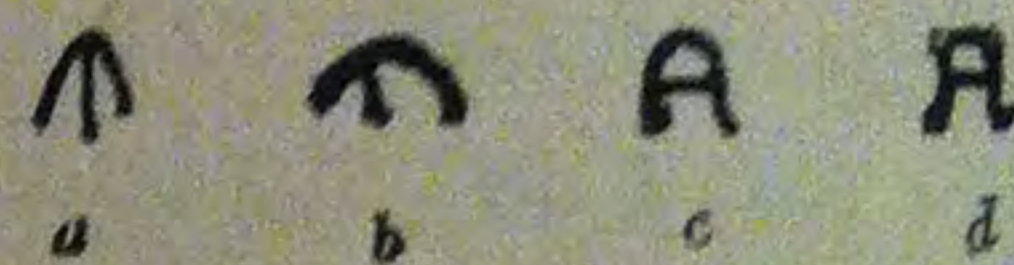
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 glet, as in (h). The final result of

these modifications was, in the East, to cause the forms of the cerebral and dental sibilants, (*d*) and (*g*), to resemble each other so closely as to make them practically indistinguishable, while in the West the forms of the two sibilants remained quite distinct. It may be added that the western form of the dental sibilant occurs in several slightly differing variations, shown in (*h*), (*i*) and (*k*), none of which, however, affects its distinctive character of angularity.

The boundary of the western and eastern areas runs roughly along E. Long. 81°. At Kausambhî (Long. 81° 27') we have inscriptions in both varieties of the northern Gupta type side by side: the western variety in the Pâli land-grant (E.I., Vol. II, p. 364, l. 4, *yathaisha*), the eastern in the pillar inscription of Samudragupta, now in Allahabad (F.G.I. No. 1, p. 1, Plate i), and in the Kôsam image inscription (F.G.I. No. 65, p. 266, Plate xxxix C). Similarly, we find the western variety in the image inscription of Déôriyâ (Long. 81° 51', F.G.I. No. 68, p. 271, Plate xl B), and close by, the eastern variety in the image inscription of Mankuwâr (Long. 81° 52', F.G.I. No. 11, p. 45, Plate xii A), and in the inscriptions at Gadhwâ (Long. 81° 18'; F.G.I. Nos. 7, 9, 64, 66, pp. 36, 40, 264, 267, Plates iv B,D, and xxxix B,D).⁵⁹ As the Nepal valley lies, within the eastern area, all the Nepalese inscriptions at, or near, Kâtmândû (Long. 85° 71') exhibit the eastern cerebral *sh* (Fig. 10, *d*), but exceptionally they preserve the distinction of the two sibilants by using the western angular dental *s* (Fig. 10, *h*).⁶⁰ Throughout the whole of the Bower Manuscript, the two sibilants appear in the western variety of the northern Gupta type, as may be seen by referring to Table I. This fact limits the country of origin of the manuscript to some part of north-western India; and as will be shown in the sequel the probability is that Parts I-III were written in the extreme north, and Parts V-VII, in the extreme south of that portion of India, or rather (p. xxxvi) by scribes coming from those localities.'

The western variety of the northern type of the Gupta script itself possessed two sub-varieties. The distinctive feature of these sub-varieties is their different way of writing the palatal sibilant *ś*, either with a curvilinear or a straight-lined top. The successive stages of development of the form of this sibilant are shown in Fig. 11. Originally, in the Aśôka script, it had the form (*a*). Gradually the medial perpendicular line assumed a slanting position as in (*b*), till finally, in the Indo-scythic period, in the Kushana script of the second century A.D., it became more or less horizontal, as in (*c*). Somewhat later, apparently in the early Gupta period, in the fourth century A.D., the alternative form (*d*) arose, which flattened the rounded top into a straight line. These two forms of the palatal *ś*, the round-topped and the flat-topped, however, were not restricted to a particular area, or a particular period of time. They existed contemporaneously during the Gupta period, and in the same common area. An instructive example is the group of Mandasôr inscription of Yaśôdharman (F.G.I. Nos. 33, 34, 35, pp. 142, 149, 150, Plates xxi B,C, xxii), which were written by the same scribe, named Gôvinda (*ib.*, p. 146), about 533 A.D.

Fig. 11.



Forms of the Palatal Sibilant.

⁵⁹ Exceptionally the eastern variety is found in two inscriptions as far west as Mihrauli (Long. 77° 14'; F.G.I. No. 32, p. 139, Plate xxxi A), and Udayagiri (Long. 77° 50', F.G.I. No. 6, p. 34, Plate iv A).

⁶⁰ See *Indian Antiquary*, Vol. XI, p. 163 ff. The two sibilants may be seen in juxtaposition in l. 13 (*kâryyêshu sadvi*) of No. 3, p. 167.

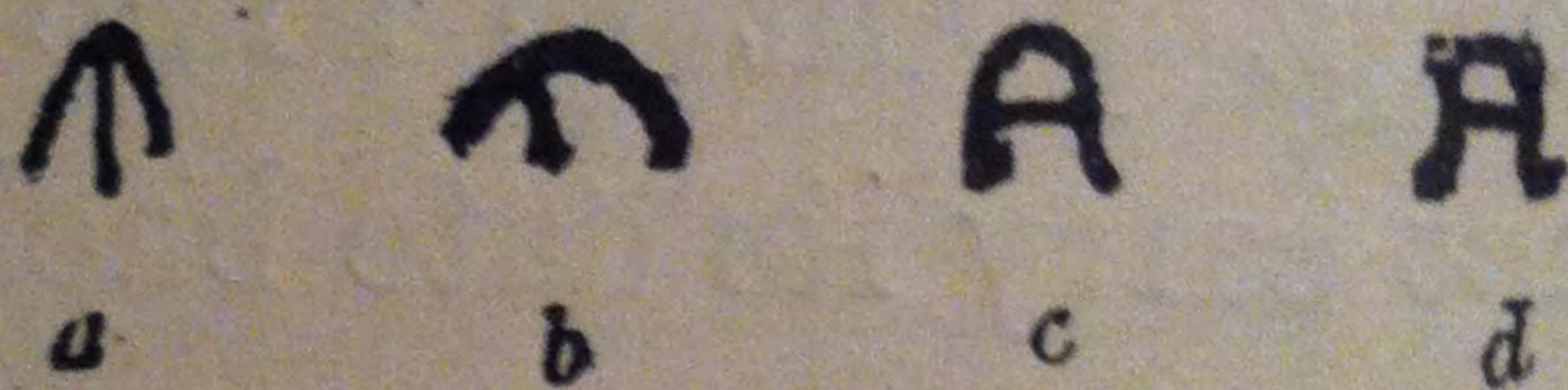
to some part of north-western India;
that Parts I-III were written in the
south of that portion of India, or rather

the Gupta script itself possessed two
sub-varieties is their different way of

curvilinear or
development

Originally,
gradually the
position as

Fig. II.



Forms of the Palatal Sibilant.

in the Kushana script of the second
century in (c). Somewhat later, apparently
A.D., the alternative form (d) arose,
and continued to be used for some time.
These two forms of the palatal ś,
are not restricted to a particular area, or
period, but are found simultaneously during the Gupta period, and
in the group of Mandasôr inscription
(Nos. 142, 149, 150, Plates xxi B,C, xxii),
Gôvinda (*ib.*, p. 146), about 533 A.D.

TABLE II VOWELS

	PART I		PART II		PART III		PART IV		PART V		PART VI		PART VII	
1. Ā	अ	आ	इ	आ	उ	आ	ए	आ	ई		ऊ	आ	अ	
2. Ā	ए	आ	उ	आ	उ	आ	उ	आ	उ	अ	ऊ	अ		
3. Ā	इ		उ		उ		ई		उ		उ		उ	
4. Ā	अ	अ	अ	अ	अ	अ	अ	अ	अ	अ		अ	अ	
5. I	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ
6. I	उ		उ		उ		उ		उ		उ		उ	
7. U	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ
8. U	उ		उ		उ		उ		उ		उ		उ	
9. Ū	उ	उ	उ	उ	उ		उ		उ		उ	उ	उ	
10. Ū	उ	उ	उ	उ	उ	उ			उ		उ	उ		
11. R ₁	उ		उ		उ		उ		उ		उ		उ	
12. R ₁			उ											
13. E	उ	उ	उ	उ	उ	उ	उ							
14. E		उ		उ		उ								
15. E	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ	उ
16. A ₁	उ	उ	उ	उ	उ		उ							
17. A ₁			उ											
18. A ₁	उ	उ	उ				उ		उ		उ			
19. O	उ	उ	उ	उ	उ	उ								
20. O		उ		उ										
21. O	उ	उ	उ	उ	उ		उ	उ						
22. O	उ		उ	उ			उ		उ	उ	उ			
23. Au	उ		उ	उ	उ									
24. Au	उ		उ				उ							
25. Au	उ	उ		उ		उ	उ		उ		उ			
26. M	उ	उ	उ		उ		उ		उ	उ	उ			
27. T	उ		उ	उ	उ	उ	उ							
28. K	उ		उ											

He uses the flat-topped form of *ś* throughout his three records.⁶¹ On the other hand, the writer of the somewhat earlier Mandasôr inscription, of the time of Kumâragupta and of the year 473-4 A.D., uses the round-topped *ś* throughout (F.GI. No. 18, p. 79, Plate xi). Good examples of the use of the flat-topped *ś* are the cave inscription of Udayagiri (Lat. 23° 32', Long. 77° 50'), dated in 425-6 A.D. (F.GI. No. 61, p. 258, Plate xxxviii), and the stone image inscription at Mathurâ (Lat. 27° 30', Long. 77° 43', F.GI. No. 63, p. 262, Plate xxxix A), dated in 454-5 A.D. On the other hand, good examples of the use of the round-topped *ś* are the copper-plate land-grants of the Parivrâjaka Mahârâjas, at Khôh, Majhgawâm, and Bhumarâ (about Lat. 24° 25' and Long. 80° 45'; F.GI. Nos. 21-25, pp. 93-112, Plates xiii, xiv, xv B), which are dated between 475 and 529 A.D. These examples show that the two forms of the palatal *ś* were in use over the same western area, and during the same period of time.

But there is one point to be observed with regard to the use of the two forms of the palatal *ś*, which is of great importance in connection with the Bower Manuscript. The two ways of writing that *ś* are never confounded, nor do they ever occur promiscuously in the same epigraphic record. It is clear, therefore, that they mark two different styles of writing, each peculiar to a particular writer. They thus offer a test for determining the number of writers who were engaged in the production of the several Parts of the Bower Manuscript. As may be seen by reference to Table I, the round-topped *ś* is used exclusively in Parts I-III, while the flat-topped *ś* is, equally exclusively, used in Parts IV-VII. In Parts I-III, the flat-topped *ś* never occurs, nor does the round-topped *ś* ever occur in Parts IV-VII. It is inconceivable that the same person should have used habitually and exclusively one mode of writing *ś* in one set of manuscripts, and another in another set of manuscripts. It follows, therefore, that Parts I-III were written by a person different from the three persons who wrote Parts IV-VII; for as will be shown in the sequel (pp. xxx and xxxiv), on similar grounds, the two writers of Parts IV and VI must have been different persons from the writer of Parts V and VII.

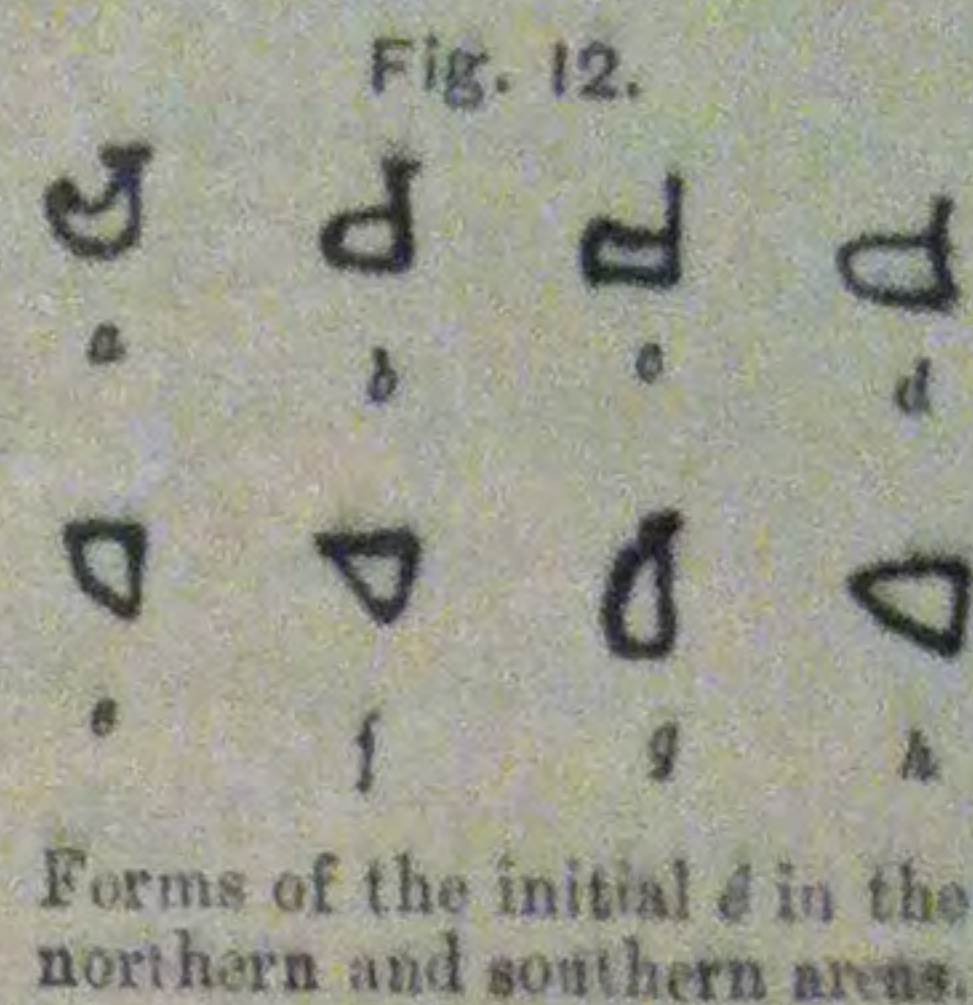
In this connection, as bearing on the question of the number of scribes, the following fact, which will be fully discussed in Chapter IV, must be noted. The modern form of the letter *y*, which originated in the northern area of the Gupta script, and which is found in Parts I-III, is entirely absent from Parts IV-VII. The latter make use exclusively of the old three-pronged form of *y* (Fig. 19), which persistently continued to prevail in the southern area. Also, another small point which distinguishes the scribes of Parts V-VII from the scribe of Parts I-III is worth noticing. It is the fashion of writing the character for the dental *th*. As may be seen in Table I, in Parts I-III that character has an upright position, while in Parts V-VII its position is more or less slanting. Though a small point in itself, it is worth noticing, because it marks the germ of a fashion of writing with a slant, which developed subsequently in the Eastern Turkestan settlement of Kuchar, and which is shown in Fig. 15, l. 2, (p. xxxiii), and in Fig. 17, l. 3, *c* and *d* (p. xxxv).

⁶¹ Unfortunately, owing to the nature of the soft sandstone, on which they are incised, the angles of the letters are much eroded, thus obscuring somewhat their true forms, but the flat top is still well marked in several cases; e.g., in *śabda*, l. 6, and *śrî*, l. 7, of the complete pillar inscription (F.GI., p. 146-7) and in *śûla* and *śatra*, l. 1 of the duplicate inscription (*ib.*, p. 159). In the better preserved inscription, on the harder slate tablet, the flat top of *ś* is quite distinct; e.g., in *śrî*, l. 4 (*ib.*, p. 153).

The peculiarities of writing above set out show that there must have been no less than four persons engaged in the writing of the Bower Manuscript. In Parts I-III, the similarity of writing is, in all points so conspicuous that it is impossible to ascribe their production to more than one person. As to Parts V, VI and VII, it has been shown from their mode of writing the palatal \acute{s} , that they cannot have been written by the identical person who wrote Parts I-III. Moreover, it is practically certain that they must have been written by two different writers. That Parts V and VII are due to the same writer follows, as in the case of Parts I-III, from the conspicuous similarity of the writing. The case of Part VI may seem uncertain. There is superficial dissimilarity in its style of writing from that in Parts V and VII, but on the other hand, it must be remembered that Part VI is written calligraphically, while Parts V and VII are written in an extremely cursive and careless fashion. Also, there is a not inconsiderable similarity of writing in the three Parts, which extends even to the use of the same signs of interpunctuation (see p. xl), Parts V-VII having in this respect a common system differing from that in Parts I-III. Moreover, there is the fact that the same name Yaśamitra (*i.e.*, Yaśômitra) occurs both in the calligraphically written Part VI (fol. 4a, l. 6, ed. pp. 225, 230) and the cursively written Part VII (fol. 2a, l. 3, ed. pp. 237-9). This name must be that of the votary, who either wrote the manuscript himself, or got it written for himself by a scribe. For, as the Japanese scholar, Dr. K. Watanabe, explains (Journal Royal Asiatic Society, 1907, p. 263) it "was a custom in ancient China and Japan" that "a votary must recite his name" in the copy of a devotional work which he either wrote himself, or caused to be written for himself. On the other hand, there is the very significant circumstance that Part VI is paginated on the obverse side of its folios, while Part VII bore its folio numbers on the reverse sides (see Chapter II, p. xx). As in the case of the two modes of writing the palatal \acute{s} , it is hardly conceivable that the same person should have been in the habit of using two entirely different modes of paginating. It should, also, be observed that (see Chapter VIII) Parts VI and VII contain two different portions of the same tract, and (see Chapter II) greatly differ in their quality of birch-bark and state of preservation. The explanation which best accords with all these facts seems to be that a monk, called Yaśômitra, wrote, or got written, for his own use, a copy of the protective charm, a portion of which now survives as Part VII. At a subsequent date, when that copy had become damaged, he got the damaged portion replaced by a new copy, namely, the existing Part VI, on a fresh supply of superior bark, which a new arrival from India may have brought with him. Regarding the personality of Yaśômitra, it may be surmised that he must have been a Buddhist monk of great repute for saintliness and learning. For the fact that the manuscripts were found in the relic chamber of the stûpa shows that they must have been the property of the person in whose honour the stûpa was erected; and to be accorded such an honour that person must have been a monk of acknowledged eminence. But whatever the exact number of writers may have been, the fact that Parts V-VII have so many peculiarities in common shows that the writer of Part V must have been a native of the same country or locality, in India as the writer of Parts V and VII. On the writer of Part IV, see below, p. xxxiv.

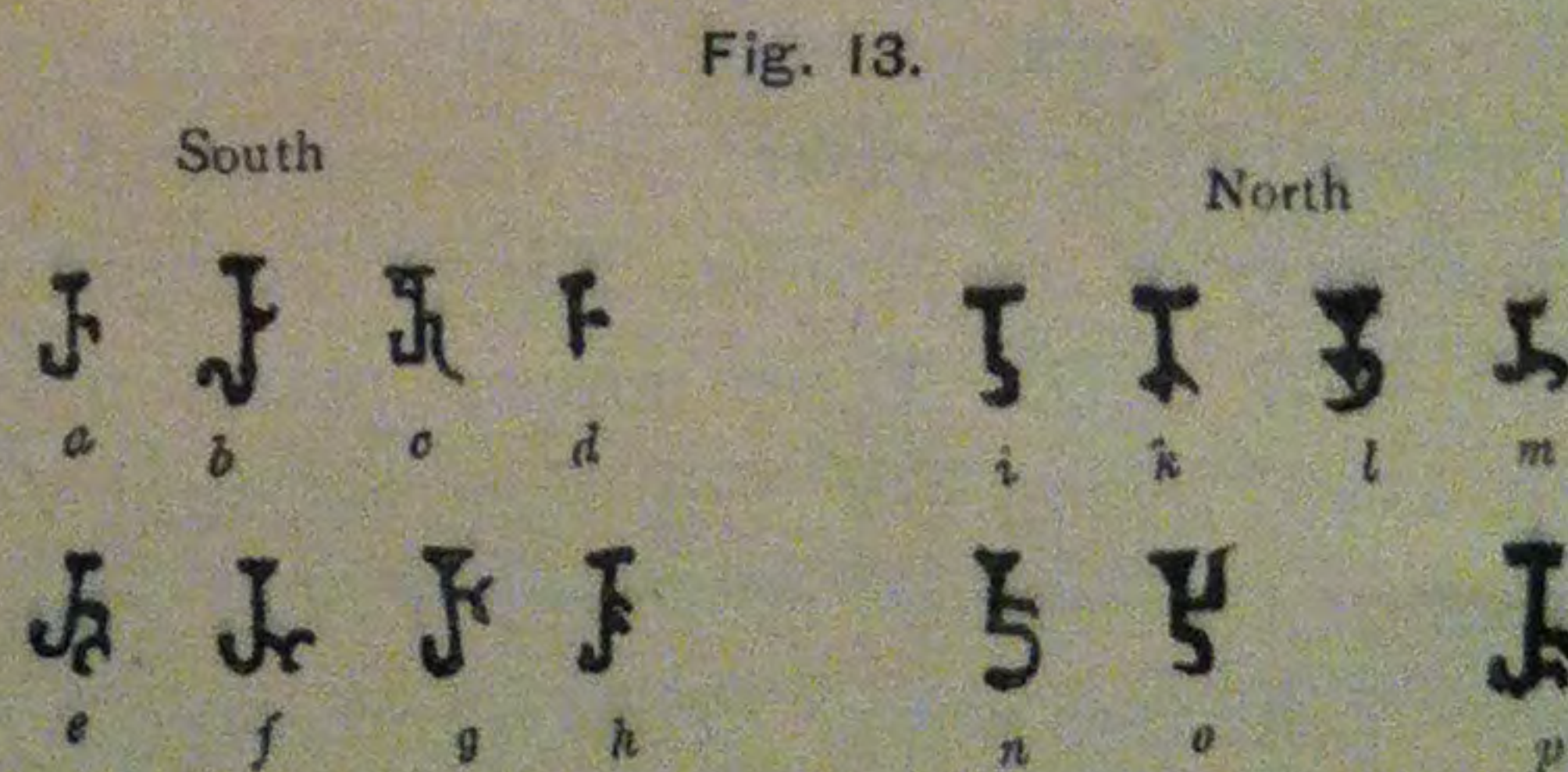
This introduces another important subject, *viz.*, the native country of the writers of the several Parts of the Bower Manuscript. On this point the manuscript presents

some very interesting evidence. In the first place, looking at Table I, a difference will be observed in the forms of the initial vowel *ē*. In Parts V-VII, the right side of the triangle projects, or juts out, beyond the apex. This projection is wanting in Parts I-III. On consulting the Tables III, IV and VII in Bühler's *Indian Palæography* (in the *Encyclopædia of Indo-Aryan Research*), it will be found that the projection is peculiar to epigraphic records of the southern area of the Gupta script. The forms which obtained in the northern and southern areas respectively are shown in Fig. 12. The boundary line, as already stated, runs roughly in a south-easterly direction between N. Lat. 24° and 22°. The form of the jutting *ē* is shown in (a) from an inscription at Māliyā (about Lat. 21° 31', F.G.I. No. 38, p. 164, Plate xxiv, l. 26), well below the boundary line, in the southern area. The same southern form, from an inscription at Eran (Lat. 24° 5', F.G.I. No. 20, p. 91, Plate xiiB, l. 1), is shown in (b). Eran is just on the boundary line of the two areas; and from another inscription (F.G.I. No. 36, p. 158, Plate xxivA, l. 2) at the same place comes the northern form without the projection, shown in (e). The same northern form, in two slight variations, is shown in (f) and (g), coming from the same place Khôh (Lat. 24° 13', F.G.I. No. 27, p. 121, Plate xvii, l. 9, and No. 28, p. 125, Plate xviii, l. 12). From further south come the Pallava and Kadamba forms, shown in (c) and (d); and from further north comes the Kushana form, shown in (h).



In the second place, there is the characteristic difference in the form of the vowels *u* and *ū*, in the *akshara*, or syllables, *ru* and *rū*, which are shown in the 7th and 9th traverses of Table II. In Parts I-III the short vowel *u* is attached to the foot of the consonant *r*, but in Parts V-VII to its middle. The long vowel *ū* is indicated in Parts I-III, by adding a stroke above, but in Part VI, by adding a semicircle, to its own particular symbol for *ru* respectively. For Parts V and VII, unfortunately, no examples are available; but their agreement, in this respect, with Part VI may be presumed. On referring again to the Tables III and VII in Bühler's *Indian Palæography*, it will be seen that the forms used in Parts V-VII are peculiar to the southern, but those in Parts I-III to the northern area. Both

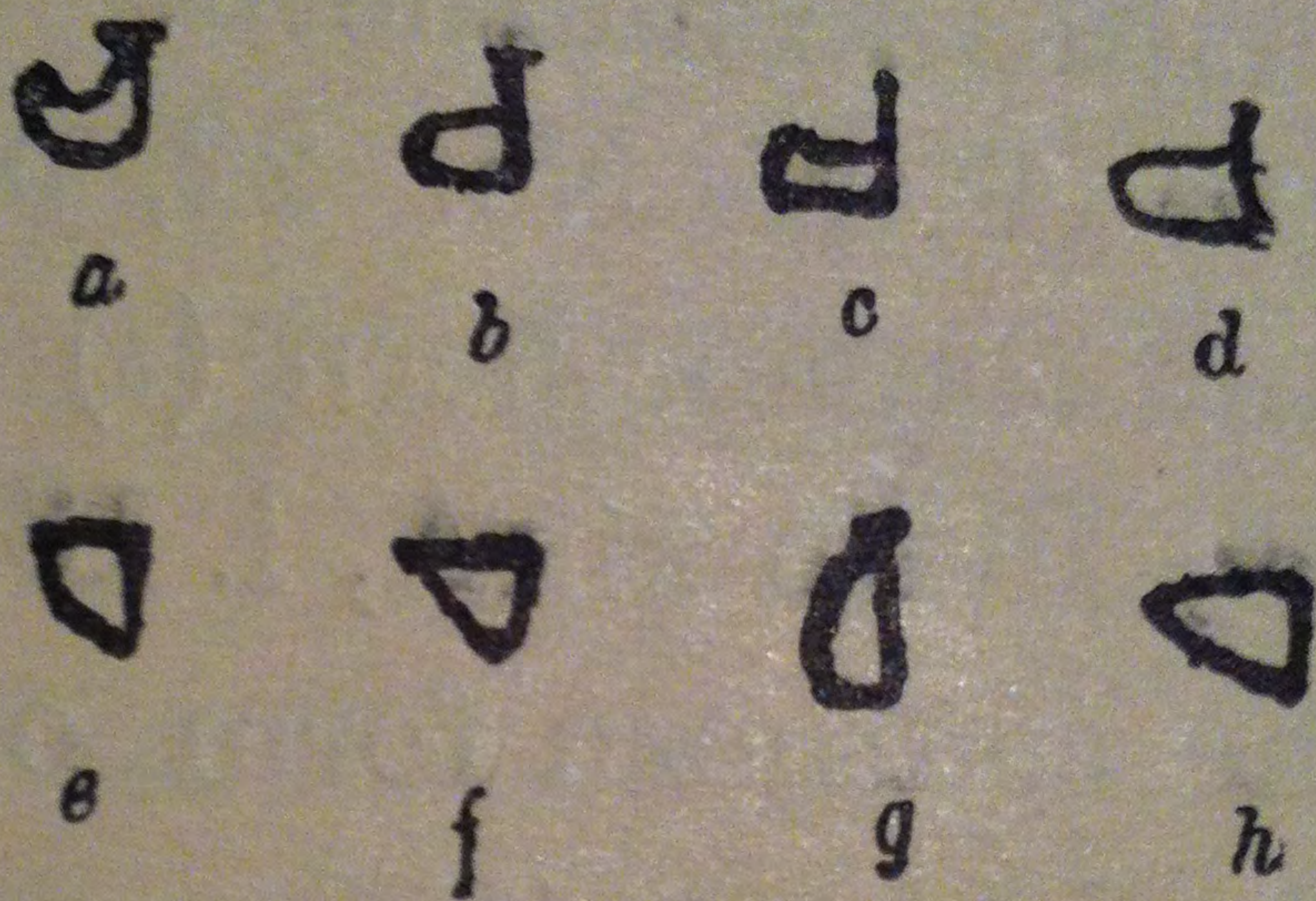
forms, the southern and northern, are shown in Fig. 13. Well within the southern area occurs the southern form (a) from the same above-mentioned inscription at Māliyā (about Lat. 21° 31', F.G.I. No. 38, p. 165, Plate xxiv, l. 3); also the similar southern form (b), from an inscription at Junâgaḍh (Lat. 20° 31'; F.G.I. No. 14, p. 61, Plate



viii, l. 29, as well as (c) from an inscription at Rājim (Lat. 20° 58'; F.G.I. No. 81, p. 295, Plate xiv, l. 12). The strictly southern character of these three inscriptions, is proved by the fact that they all exhibit the distinctly southern form of *m* (Fig. 9b). The Māliyā inscription (Plate xxiv, ll. 12, 16) shows the southern forms (e) and (f) of *rū*. On the other hand, we have, well within the northern area, the northern form (i) of *ru* in inscriptions at Kahaum (Lat. 26° 16', F.G.I. No. 15, p. 67, Plate ix A, ll. 8, 12), and

... is wanting in
 Bühler's Indian Palæography
 found that the projection is
 Gupta script. The forms
 ect-

Fig. 12.

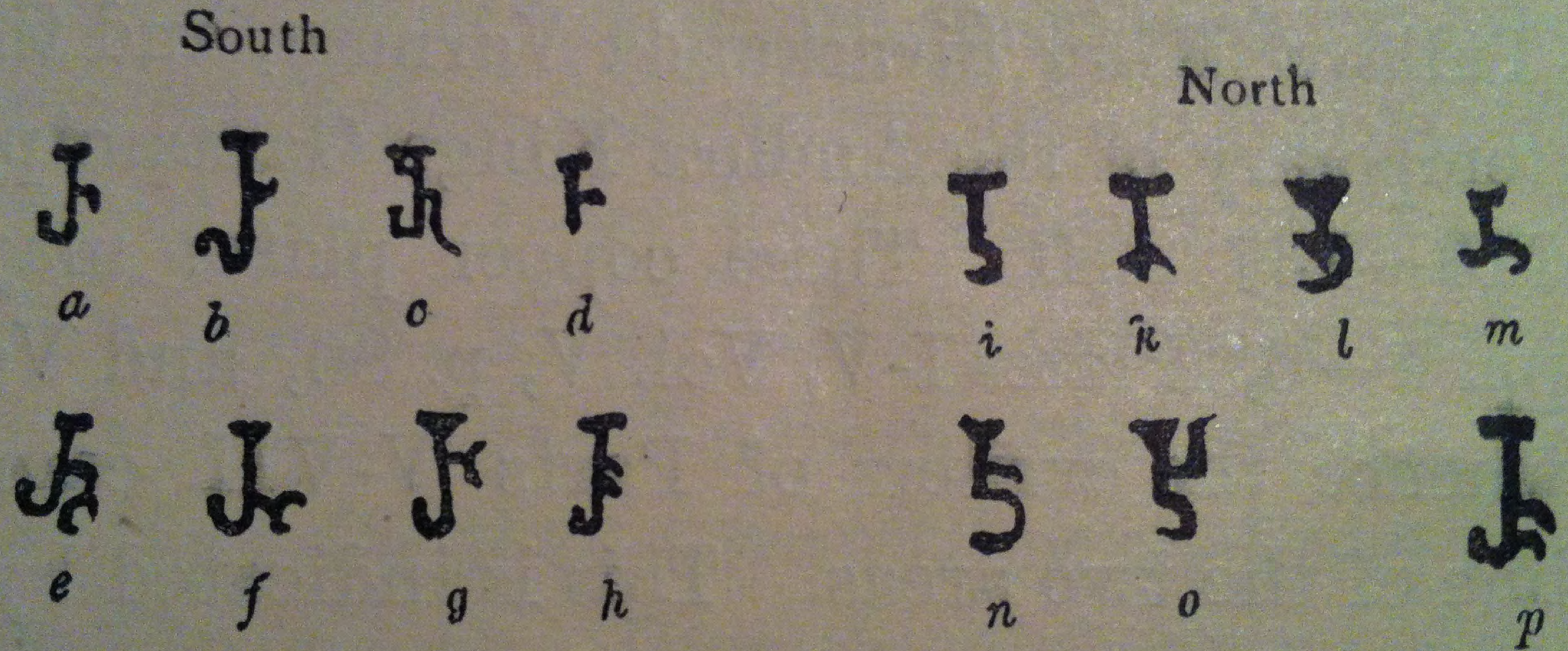


Forms of the initial *é* in the
 northern and southern areas.

another inscription (F.G.I.
 the northern form without
 slight variations, is shown
 F.G.I. No 27. p. 121,

II in Bühler's *Indian Palæography*, it will be
 -VII are peculiar to the southern, but those in
 Both

Fig. 13.



Forms of *ru* and *rû* in the northern and southern areas.

tion at Râjim (Lat. $20^{\circ} 58'$; F.G.I. No. 81, p.
 uthern character of these three inscriptions is

at Indôr (Lat. $28^{\circ} 12'$, F.GI. No. 16, p. 71, Plate ix B, l. 6), and the similar forms (*k*) at Nâgârjunî (Lat. $25^{\circ} 0'$), (*l*) at Mandasôr (Lat. $24^{\circ} 3'$), and (*m*) at Mathurâ (Lat. $27^{\circ} 30'$; F.GI. Nos. 50, 33, 63, pp. 227, 147, 263, Plates xxxi, l. 1, xxiB, l. 8, xxxixA, l. 3). The northern form (*n*) of *ru* appears in an inscription at Udayagiri (Lat. $23^{\circ} 32'$, F.GI. No. 61, p. 259, Plate xxxviii, l. 7), and with a slight difference (*o*) at Bôdhgaya (Lat. $24^{\circ} 41'$, F.GI., No. 71, p. 277, Plate xli, l. 13). Both these inscriptions are on the border line; but on that line also the southern forms of *ru* and *ru* are found side by side with the northern. Thus at Khôh (Lat. $24^{\circ} 23'$) both forms of *ru* occur: the southern (*d*) (F.GI. No. 22, p. 103, Plate xiii, ll. 5, 11, and No. 25, p. 114, Plate xvB, ll. 7, 13), and the northern (*i*) (F.GI. No. 27, Plate xviii, ll. 6, 10; No. 28, Plate xviii, l. 6; No. 29, Plate xixA, l. 13, and No. 31, Plate xx, l. 6); and what is particularly to be noted, the southern form occurs here in conjunction with the northern form of *m* (Fig. 9 c). Similarly both forms of *ru* are seen at Mandasôr (Lat. $24^{\circ} 3'$), the southern (*g*) (F.GI. No. 18, p. 82, Plate xi, ll. 10, 15) and the northern (*n*) (F.GI. No. 35, p. 153, Plate xxxii, l. 11). Moreover, there is a peculiar form *ru* (*h*) and (*p*) which substitute two parallel strokes for the southern semi-circle, and this form appears to be common to both areas; for it is seen in the south at Junâgadh (Lat. $21^{\circ} 31'$; F.GI. No. 14, p. 59, Plate viii, l. 10), as well as in the north at Bilsad (Lat. $27^{\circ} 33'$; F.GI. No. 10, p. 44, Plate v, l. 11).

In the third place, there is the striking difference in the use of the two forms of the letter *y*, the old and the modern. In Parts I-III, as already observed, and as will be explained in detail in Chapter IV, the modern form of *y* is used optionally with its older three-pronged form; while in Parts V-VII that three-pronged form is used exclusively. The modern form of *y* originated in the north, and its use never spread into the south.⁶²

The obvious conclusion suggested by the foregoing evidence is that the persons who wrote Parts V-VII were natives of some place lying within the southern area. In the case of Part VI, at all events, this conclusion is confirmed by the other significant fact that the folios of Parts VI are numbered on their obverse sides (see Chapter II, p. xx). For, as Bühler has pointed out in the *Vienna Oriental Journal*, Vol. VII, p. 261, the practice of numbering the folios on their obverse side is a peculiarity of Southern India. We have a good example of this practice, of a very early date, in the copper-plates of the Pallava King Śivaskanda Varman, and the Kôṇḍamudi Plates of Jaya Varman, a contemporary of the Andhra Kings Gautamîputra and Vâśishṭhîputra, who reigned about 113-137 A.D. These copper plates may be seen in the *Epigraphia Indica*, Vol. I, pp. 4-6, Plates I-V, Vol. V, p. 86, and Vol. VI, p. 315. At the same time, the place whence the writers of Parts V-VII came must have been somewhere near the border line of the two areas. This is indicated by the circumstance that the southern forms of *e*, *ru* and *ru* are employed in conjunction with the northern form of *m*, exactly as in the inscriptions, above mentioned, at Eran and Khôh, both of which places lie on the border line. While the writers of Parts V-VII appear to have come from some place near the southern limit of the northern area, the person who wrote Parts I-III must have come from somewhere near its northern limit, that is to say, from Kashmir or Udyâna. This

⁶² There is a further point of difference between Parts I-III and Parts V-VII. It concerns the shape of the initial vowel *i*. This point, however, is not decisive of locality, and will be discussed in the sequel, p. xxxv.

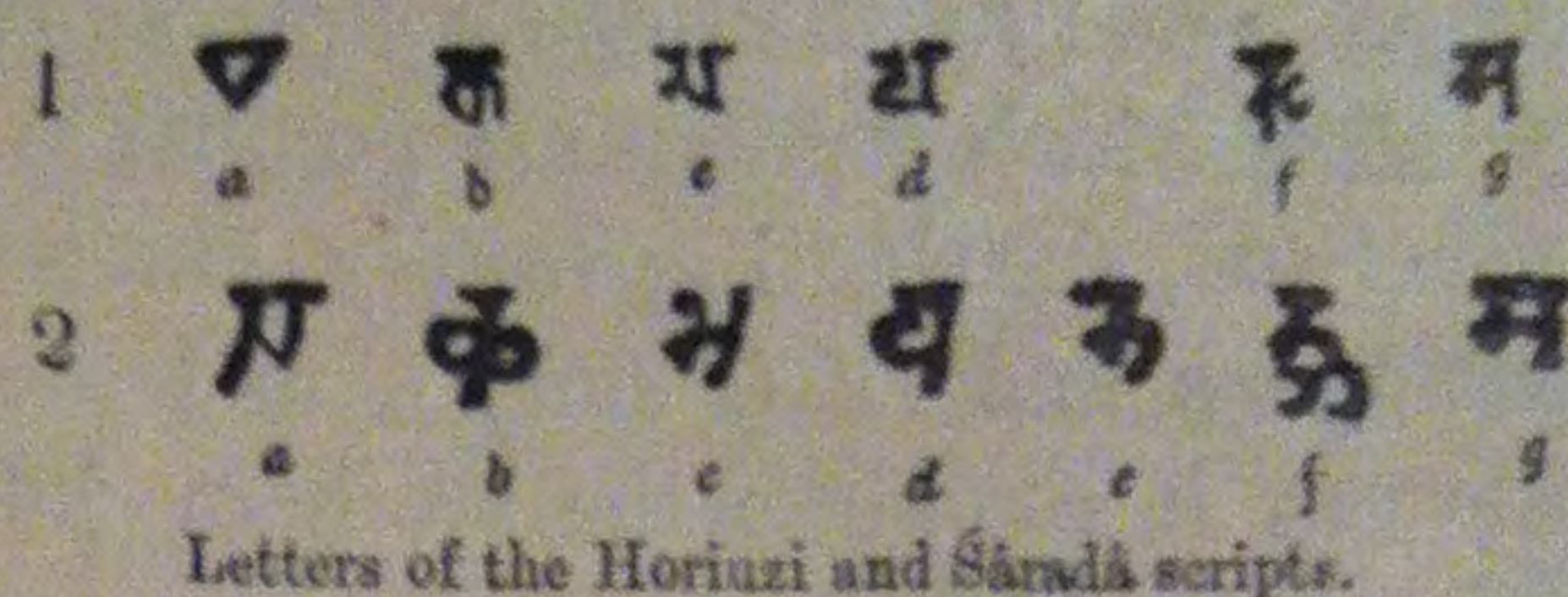
is indicated by the occurrence in Part II (fol. 27a, l. 11) of the peculiar Śāradā form of the letter *k* (Table I, No. 2 in Traverse 2). The Śāradā script is peculiar to Kashmir, where it originated directly from the Gupta script in the course of the seventh century, and where it is still current, almost unchanged, to the present day. The Śāradā forms of those letters which enter into the present enquiry are shown in the lower line of Fig. 14.⁶³

The upper line shows the corresponding letters in the script of the Horiuzi Manuscript, which was written in the first half of the sixth century (*Anecdota Oxoniensia*, Vol. I, Part III, p. 64). Its script, therefore, was the immediate predecessor of the Śāradā script. The appearance of the Śāradā form of *k*

(Fig. 14, l. 2 b) in Part II is quite exceptional. It occurs only once. Its use would seem to have grown gradually more frequent, till it finally became distinctive of the Śāradā script. On the other hand, that script selected for itself (Fig. 14, l. 2g), from the two co-existent forms of the palatal *ś*, the flat-topped variety, which is used in Parts V-VII.

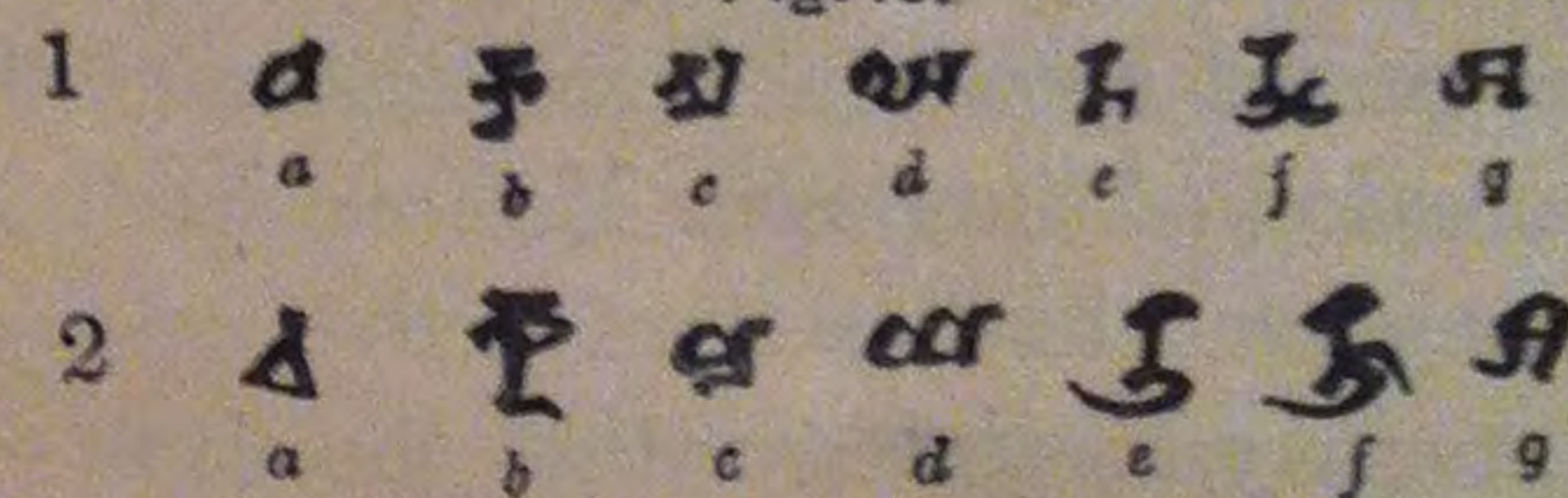
The forms which the Gupta script developed on its transference to Central Asia are shown in Fig. 15. That figure shows the same series of letters (as in Fig. 14) in the forms which they assumed in manuscripts written in the Buddhist settlement at Kuchar. They are extracted from Parts II and IX of the Weber Manuscripts, which are shown in Plate I, Fig. 2, and Plate III, Figs. 3-5, in my *Report on the Weber Manuscripts* in the Journal of the Asiatic Society of Bengal, Vol. LXII, Part I (1893), pp. 1-39. It will be seen from Fig. 15 that there are two distinct varieties of the Kuchari script, the second variety (lower line) showing an appreciable slant which is absent from the first variety.⁶⁴ The latter variety, it will be noticed, resembles much more closely the upright *ductus* of the Gupta script as it was current in northern India, and as it prevails in the Bower Manuscript. The latter Manuscript, as has been explained in Chapter II, is written mainly (*i.e.*, all except Part VI) on inferior and damaged birch-bark, which circumstance suggests its having been written by Indian emigrants on remnants of the store of birch-bark which they had brought with them from India.⁶⁵ On the other hand, the Weber Manuscripts are written on paper, which was the ordinary writing material of Eastern Turkestan. The two varieties of the Kuchari script, shown in these manuscripts, were current contemporaneously; for they were all dug out from the Qutluq Urdā stūpa in the vicinity of Kuchar (see Chapter I). How the divergence of the two varieties arose is not known. What the difference of the writing material, however, suggests is that the manuscripts on birch-bark, such as the Bower Manuscript were

Fig. 14.



Letters of the Horiuzi and Śāradā scripts.

Fig. 15.



The upright and slanting scripts of Kuchar.

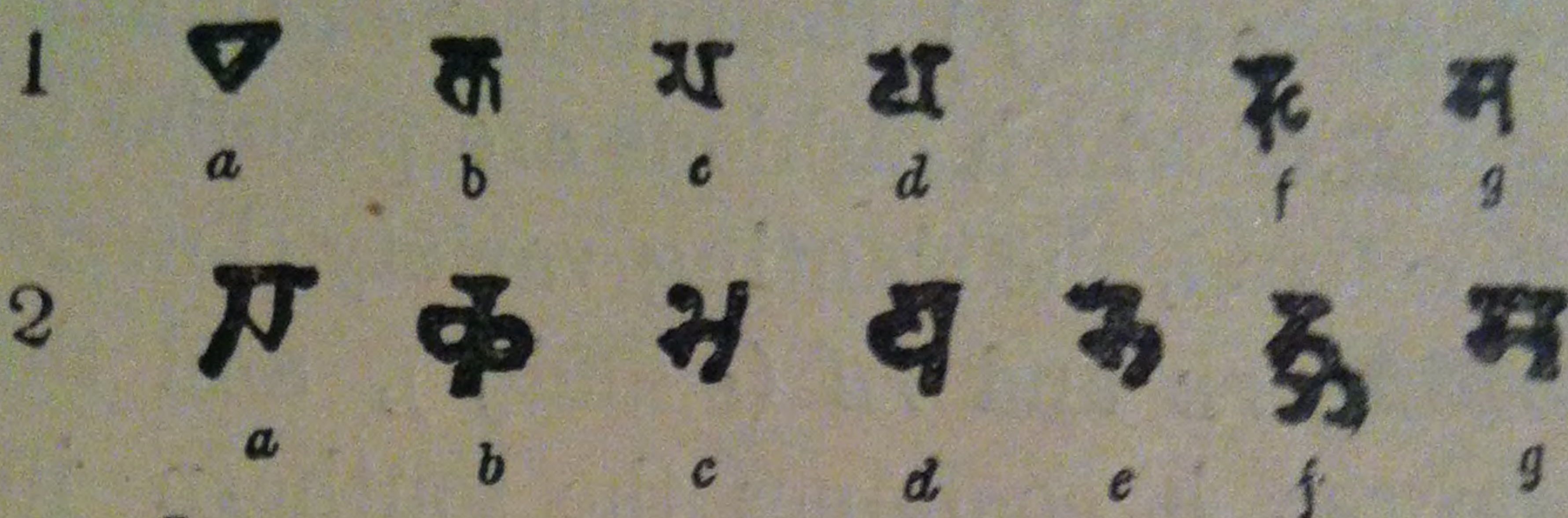
⁶³ These letters are extracted from a birch-bark manuscript in Śāradā characters which was presented to me by Dr. Stein in December 1898.

⁶⁴ The two varieties are shown also in Fig. 17, where the difference of the upright (*c*) and slanting (*d*) forms of *n* and *t* (in ll. 1, 2, 3, respectively) is very clearly marked.

⁶⁵ This conclusion is suggested also by the circumstance mentioned earlier (p. xxix) that the letter *tā* is written in Parts V-VII with an approach to the slant which distinguishes one of the two varieties of the fully developed Kuchari script.

upta script in the course of the seventh century, changed, to the present day. The Śāradā forms of nt enquiry are shown in the lower line of Fig.

Fig. 14.

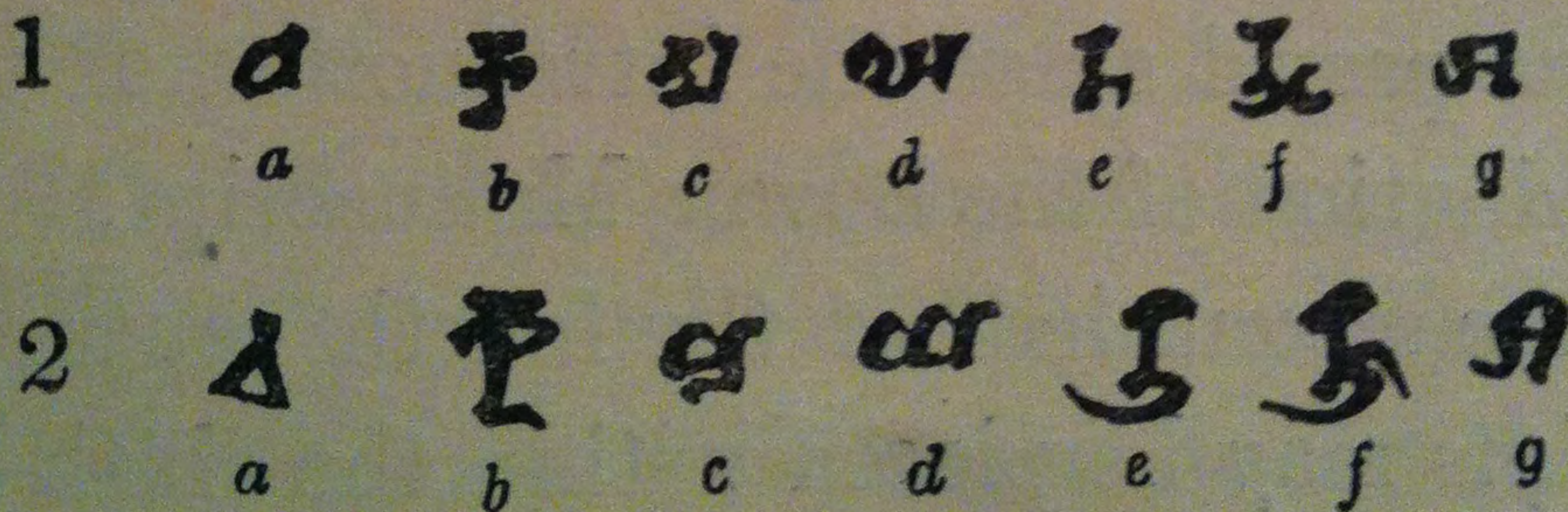


Letters of the Horiuzi and Śāradā scripts.

ptional. It occurs only once. Its use would quent, till it finally became distinctive of the script selected for itself (Fig. 14, l. 2g), from the e flat-topped variety, which is used in Parts

eloped on its transference to Central Asia are

Fig. 15.



The upright and slanting scripts of Kuchar.

t on the *Weber Manuscripts* in the Journal I, Part I (1893), pp. 1-39. It will be seen

written at an earlier date than the manuscripts on paper. The former probably were written by immediate immigrants from India, who still possessed some store of birch-bark, their native writing material, while the latter were written by their descendants, or by native Kuchari converts who naturally made use of the paper of their own country. In this connection a curious point may be noticed. The upright variety (upper line in Fig. 15) conserves the Southern Indian fashion of writing the syllables *ru* and *ru* (*e* and *f*), the jutting *é* (*a*), and (though not quite distinctly) the flat-topped *ś* (*g*), all of which fashions are peculiar to Parts V-VII of the Bower Manuscript. On the other hand, the slanting variety (lower line of Fig. 15) conserves the northern fashion of writing *ru* and *ru* (*e* and *f*), and the round-topped *ś* (*g*) of Parts I-III, with which, however, it combines the southern jutting *e* (*a*). This combination, in the slanting variety, of different Indian fashions of writing seems to suggest that that variety originated among the native Kuchari converts to Buddhism, while the upright variety persisted among the Indian Buddhist immigrants and their descendants. For it should be noticed that both the Śāradā script, which originated from the Gupta script, and the Horiuzi script, which occupies a position intermediate between the Gupta and Śāradā, agree with the upright variety of the Kuchari script in conserving the southern Gupta fashion of writing *é*, *ru* and *ru*, and *ś*.⁶⁶ The considerable modification in the forms of some letters, such as *m* and *y* (Fig. 15, *c* and *d*), presupposes a not inconsiderable interval of time to have passed since the introduction of the Gupta script into Eastern Turkestan and the production of the Bower Manuscript. As the date of the latter is probably to be referred to the second half of the fourth century (see Chapter V), the date of the Weber Manuscripts may be placed within the sixth century, or possibly a little earlier.

It has been stated (*ante*, p. xxix) that Part IV must have been written by a person different from the two writers of Parts V-VII, as well as from the writer of Parts I-III. From the latter the writer of Part IV differs (see Plate I) by the use of the flat-topped *ś*, as against the use of the round-topped *ś* in Parts I-III. From the former he differs by the use of the plain *é*, as well as the northern *ru* and *ru*, as against the jutting *é* and the southern *ru* and *ru* of Parts V-VII. Further from both, the writer of Parts I-III as well as the writers of Parts V-VII, the scribe of Part IV differs in the following striking points. In the first place, he writes the initial vowel *ri* in a way quite peculiar to himself. In Parts I-III it is written quite differently, as may be seen from Table I. In Parts V-VII that vowel does not happen to occur at all. It is altogether a character of very rare occurrence. From the epigraphic records of India, as may be seen by a reference to the Tables in Bühler's *Indian Palæography*, it appears to be altogether absent. In the Horiuzi Manuscript (first half of the sixth century) it resembles rather the character for the vowel *a*. In the Śāradā script, also, it has a very simple form, though quite different from that in Part IV. The full data for an effective comparison, therefore, are not available. All that can be said is that the form of the initial vowel *ri*, which is seen in Part IV, stands quite by itself.

In the second place, in Part IV the initial vowel *i* is written quite differently from Parts I-III on the one side, and from Parts V-VII on the other. The character for the

⁶⁶ The line of linguistic descent, on the present evidence, appears to be as follows: The southern Gupta travels in the fourth century northwards, through Kashmir and Udyāna, to Kuchar in Eastern Turkestan. In Kashmir it develops gradually, through the Horiuzi script (6th cent.), into the Śāradā (7th cent.). In Kuchar it develops, contemporaneously with the Horiuzi stage, into the slanting variety of the Kuchari script (6th cent.).

vowel *i* is made up of three dots arranged triangularly (see Table I). With the exception of Part IV, all the Parts agree in placing the dot, which forms the apex, below the two dots which form the base of the triangle; with this difference, however, that in Parts V-VII the apicular dot is made plain, while in Parts I-III it is furnished with a tail. But in Part IV the arrangement of the dots is exactly reversed; the apicular dot has the superior position. The evidential value of this difference, however, is not quite assured. In the Gupta script, as seen in the epigraphic records of India the initial *i* is made in a great variety of forms. These are shown in Fig. 16. The four forms (*a-d*) are peculiar to the southern area of that script. The two forms (*e* and *f*) and the four forms (*g-k*) prevail mainly in the eastern and western portions respectively of the northern area. Finally the form (*l*) has no definite habitat: it is found in the inscriptions at Nirmand in the north-west (Lat. $31^{\circ} 25'$, Long. $77^{\circ} 38'$), in Pahladpur in the north-east (Lat. $25^{\circ} 26'$, Long. $3^{\circ} 31'$), and at Junâgadh in the south-west (Lat. $21^{\circ} 31'$, Long. $70^{\circ} 36'$). Moreover in the Nirmand inscription it occurs side by side with the proper western form (*i*); and in the Pahladpur record it alternates with the form (*g*). Considering that the record at Nirmand comprises only sixteen lines, and that at Pahladpur even only a single line, the suspicion obtrudes itself that the reversal of the position of the apicular dot in the form (*l*) may be a mere error of writing. Whether or not its occurrence in Part IV of the Bower Manuscript is due to a scribal error, it is not possible to say with certainty, seeing that the initial (*i*) occurs only once in that Part; but the possibility of its being due to a mere error cannot be disregarded, and it is this possibility which detracts from its evidential value. For the purpose of further comparison there are added in Fig. 17 the forms of initial *i* in the Horiuzi (*a*) and Śâradâ (*b*) scripts, as well as in the Kuchari script of the upright (*c*) and slanting (*d*) varieties. In order to bring out more clearly the marked distinction between the two varieties (*c*) and (*d*) of the Kuchari script, the forms of *n* and *th* are added in the second and third lines.

Fig. 16.

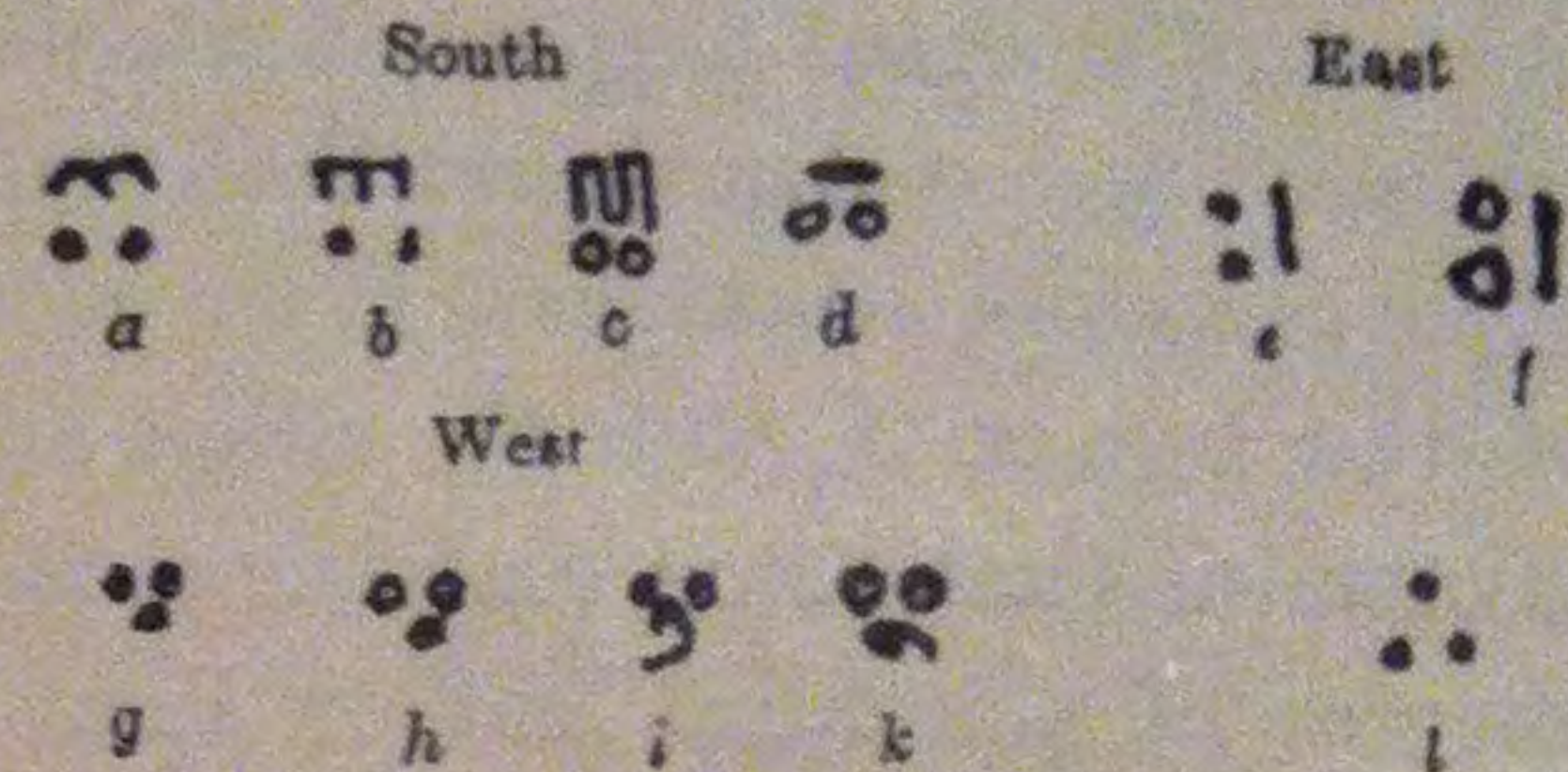
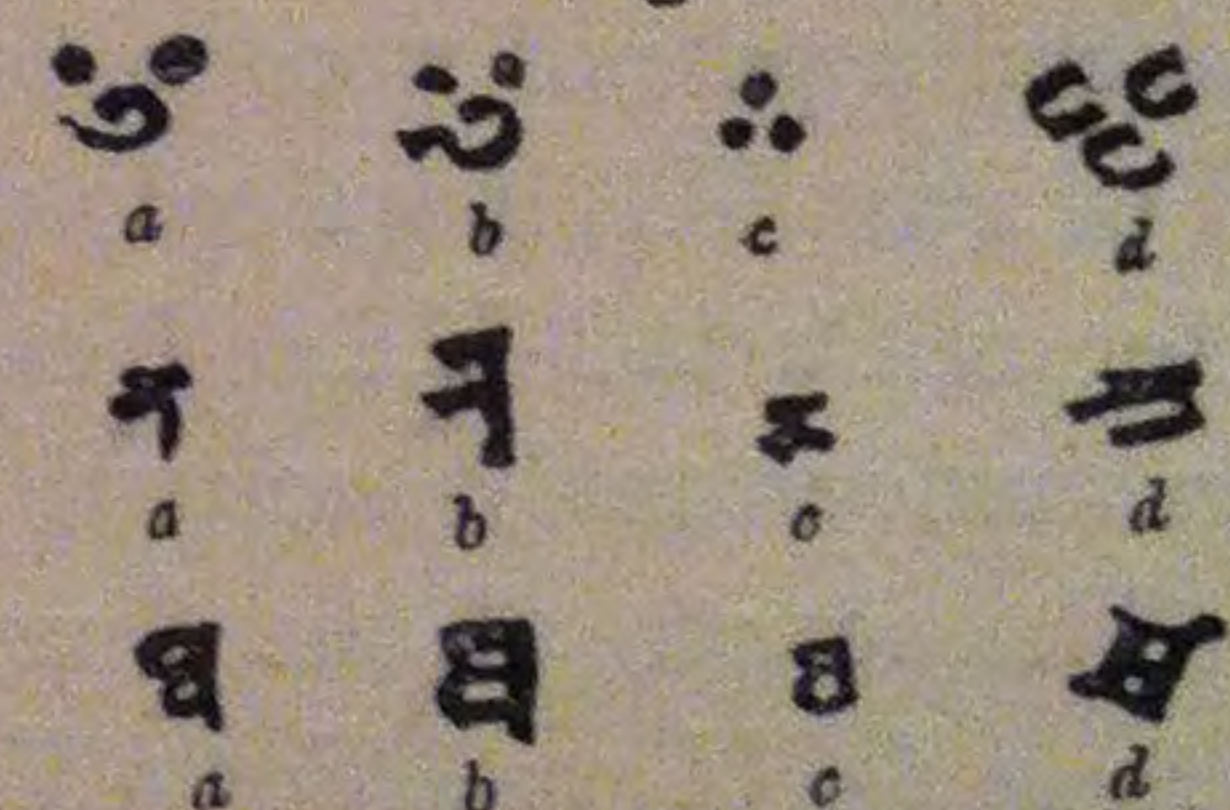
Forms of the initial vowel *i*.

Fig. 17.



Letters of the Horiuzi, Śâradâ, and Kuchari scripts.

In the third place, the general appearance of the writing in Part IV conveys the suggestion that it was done with a brush rather than a stylus or reed-pen. Thus the curious flourish, or jerk, at the bottom of the right limb of the letters *g* and *t*, and of both limbs of *ś* (see Table I); suggests the brush. The apparently similar curves, to be seen in the letters *g*, *t*, *n*, *ś* in Parts V-VII, are obviously due to a different cause, *viz.*, to the tendency towards continuity in cursive writing.⁶⁷ The stylus, or reed-pen was the usual instrument of the Indian scribe, and with it undoubtedly Parts I-III and V-VII are written. The brush was peculiar to the Chinese scribe, and hence would naturally be the instrument used in the Chinese province of Eastern Turkestan. And though an Indian immigrant into Kuchar might conceivably abandon his accustomed instrument and

⁶⁷ An instructive example of an exactly similarly written cursive *ś* may be seen in the Tōramāna stone inscription at Kura, in the word *mahīśa*, in *Epigraphia Indica*, Vol. I, p. 240, l. 12.

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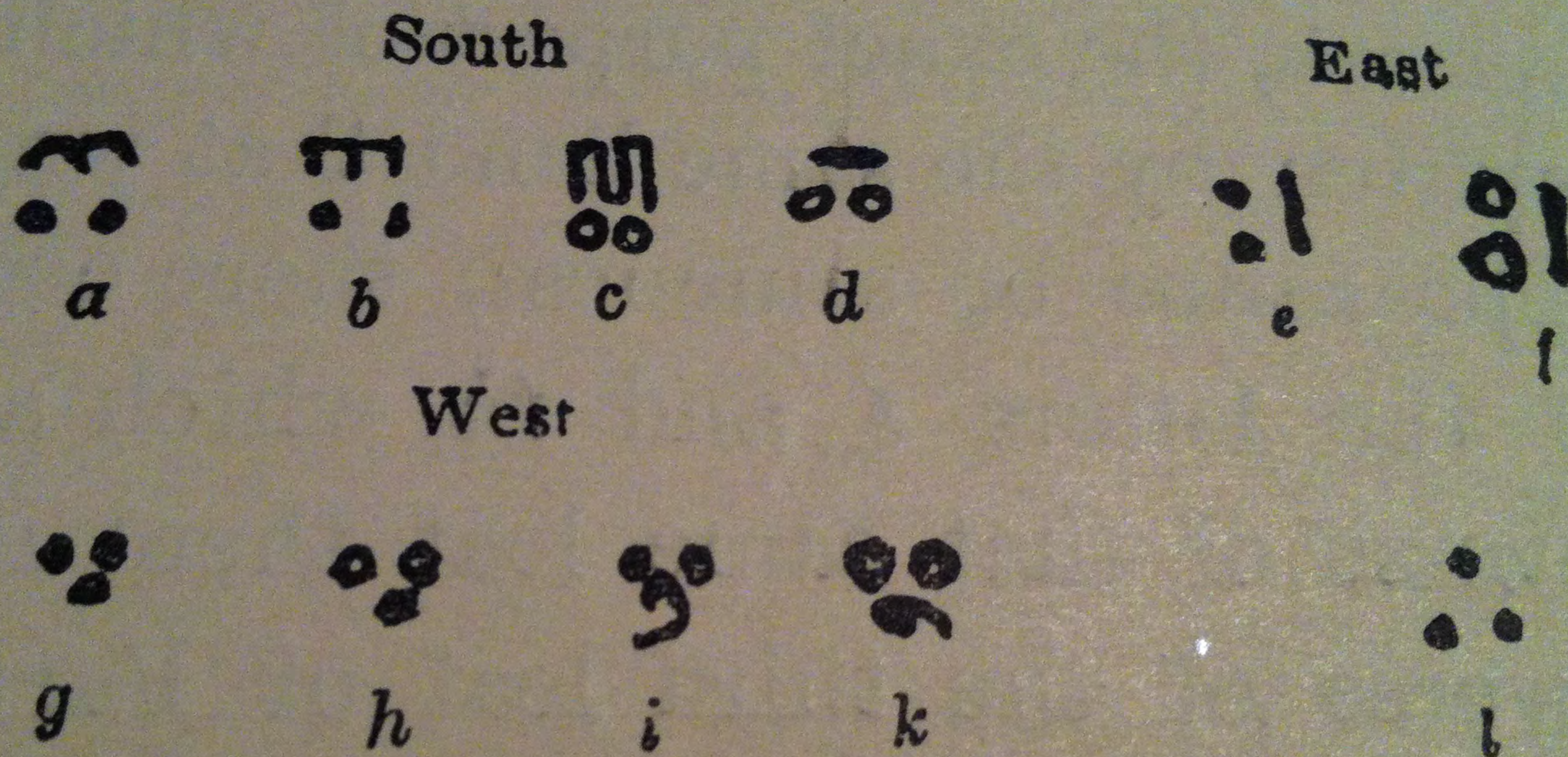
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t. 21° 31', Long. 70° 36'). Moreover

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with the form (a). Considering that

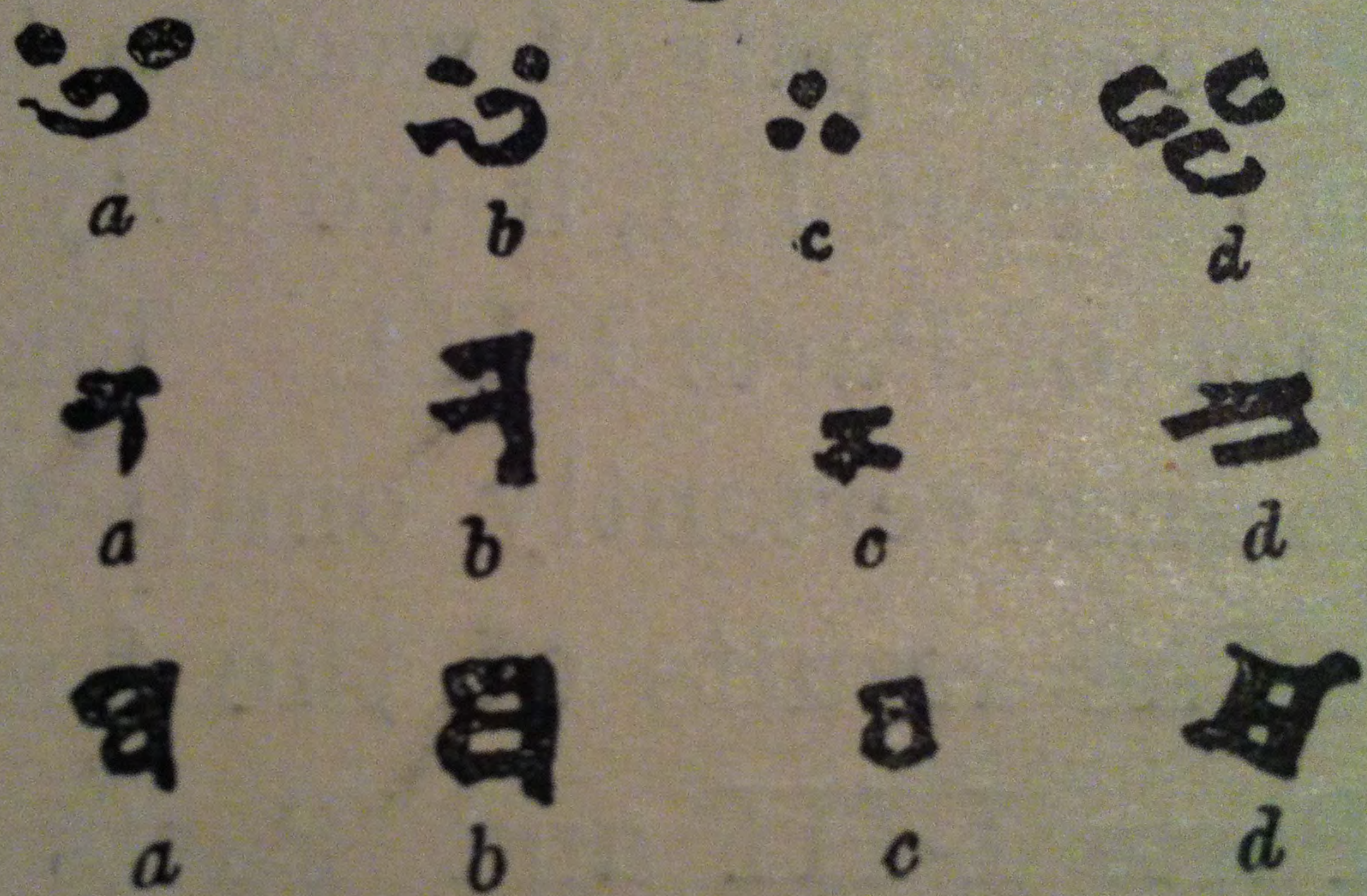


Forms of the initial vowel i.

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Fig. 17.



Letters of the Horiuzi, Śâradâ, and
 Kuchari scripts.

the writing in Part IV conveys

take to that of his adopted country, it is—on the assumption that Part IV was really written with a brush—practically certain that it must have been written by a native of Eastern Turkestan, or perhaps by a Chinese Buddhist monk, resident in the monastery of the Ming-oï of Qum Turâ.

Irrespective of the details which distinguish the three styles of writing in Parts I-III, Parts V-VII, and Part IV respectively, it is impossible not to be impressed by the pronounced difference in the general appearance of the writing in those three portions of the Bower Manuscript. This circumstance leads to a further observation. On the blank space of the obverse of the leaf on which Part III ends, there is inscribed a remark, the exact purport of which is, at present, not intelligible. But it is obviously written by the same hand that wrote Parts V and VII. For, in addition to the general appearance of sameness, there occur in the remark those forms, previously explained of the letters *ś* and *th*, which are peculiar to the writer of Parts V and VII. On the reverse of that same leaf there is inscribed the commencement of Part IV. On the obverse of the third leaf of Part IV (see Plate XL), there is seen, written between the fourth and fifth lines, the brief remark *na samśaya*. This interlinear remark, too, is clearly in the handwriting of the scribe of Parts V and VII; for it comprises the peculiar *ś* and *y* of those Parts; for example, as will be seen by reference to Table I, the left-hand stroke of *y* of the remark curls to the left as in Parts V and VII, while in Part IV it curls to the right. The conclusion that may be drawn from the existence of the two remarks in the positions in which they occur is that after Parts I-III had been written, they passed into the hands of the writer of Part IV who began his writing on the blank page of the last leaf of Part III. Afterwards Parts I-IV passed into the hands of the writer of Parts V and VII, who added his explanatory remark to the final page of Part III, and his brief complementary remark on the third leaf of Part IV. Probably it was also he who put all the Parts together, and enclosed them as a collective manuscript between a pair of wooden boards. It may be suggested that the remark appended to the end of Part III, if we only understood it, might refer to the monastic order or rank of the writer of Parts I-III. The interlinear remark in Part IV only adds a phrase which had been inadvertently omitted by the original writer.

The results of the foregoing enquiry may be summed up as follows. The writers of Parts I-III and Parts V-VII were natives of India who had migrated to Kuchar. They, no doubt, were Buddhist monks, and these, as is well known, were often in the habit of travelling, or migrating, for missionary or other purposes, into Foreign Parts. To judge from their style of writing, the scribe of Parts I-III originally came from the northern, and the two scribes of Parts V-VII from the southern part of the northern area of the Indian Gupta script. But the fact that they use birch-bark as their writing material shows that the country, from which more immediately they migrated to Kuchar, must have been Kashmir or Udyâna; and the quality of the birch-bark which they use suggests that they wrote their respective parts of the Bower Manuscripts after their settlement in Kuchar, when their store of birch-bark had run short. Parts V and VII probably were written about the same time as Parts I-III. The latter apparently were never completed. They passed, in their incomplete state, into the hands of the writer of Part IV, who would seem to have been a native of Eastern Turkestan, or perhaps of China. From him Parts I-IV passed into the hands of the writer of Parts

V and VII, who added the two remarks above referred to. Part VI was written at a subsequent date by a fourth scribe on a fresh supply of well prepared birch-bark leaves, since received from India, for the purpose of repairing the damage suffered, in the mean time, by Part VII. In fact, that fresh supply may have been brought from India by the fourth scribe himself who may have been a later immigrant. All four writers must have been residing in a monastery near Kuchar. But the ultimate owner of the whole series of manuscripts, whose name appears to have been Yaśomitra, must have held a prominent position in that monastery. For his collective manuscript was contained in the relic chamber of the memorial stûpa at the *Ming-öi* of Qum Turâ, which would appear to have been built in his honour.

CHAPTER V.—THE DATE OF THE WRITING OF THE BOWER MANUSCRIPT.

None of the seven Parts of the Bower Manuscript is dated. Nevertheless it is possible from its palæographic conditions⁷³ to determine the date of the manuscript within comparatively very narrow limits. In doing so two preliminary points must be taken into consideration.

In the first place, the Bower Manuscript, though recovered from Eastern Turkestan, is essentially a product of north-western India. It is written on birch-bark. The use of that bark, as a writing material, was according to all available evidence, limited to north-western India.⁷⁴ In Eastern Turkestan, whence the Bower Manuscript has come, the birch which yields the writing bark does not appear to grow at all. With a very few exceptions, all the manuscript books, discovered in Eastern Turkestan in the course of many recent explorations of its ancient ruined sites, are written on various kinds of paper.⁷⁵ Those few birch-bark manuscript books, which are known to have been discovered in that country, are the Bower Manuscript, the Dutreuil de Rhins Manuscript, a manuscript found by Mr. Bartus, a member of Professor Grünwedel's expedition, and a manuscript found by Dr. Stein. The Dutreuil de Rhins Manuscript was said to come from the sacred cave on the Gôśringa hill near Khotan; but the story of the native finders has been fully exposed by Dr. Stein, who examined the cave in the course of his first expedition in 1900-1.⁷⁶ Nothing is really known of the find-place of that manuscript. The Bartus Manuscript was found in the course of Professor Grünwedel's expedition in 1902-3, in one of the rock-cut caves, close to the *Ming-oï* of Qizil to the west of Kuchar, a little higher up the river Muzart than the *Ming-oï* of Qum Tûrâ (see the Sketch Map).⁷⁷ The Stein Manuscript is a recent discovery. It was excavated by Dr. Stein, in the course of his second expedition, 1906-8 in Khadalik, a site north-east of Domoko,⁷⁸ which was abandoned probably in the second half of the eighth century A.D. As to the Bower Manuscript, there is no sufficient reason to doubt the story of its having been found in one of the ruined stûpas of Qum Tûrâ, near Kuchar (see Chapter I, pp. xi ff.). All these birch-bark manuscripts must have been written by Buddhist pilgrims, or immigrants, from north-western India. Most of them probably were written by them in their original home, in Kashmir or

⁷³ An essay on the date of the Bower Manuscript was published by me in the *Journal, As. Soc. Beng.*, Vol. LX (1891), Part I. It was reprinted, with additions, in the *Indian Antiquary*, Vol. XXI, pp. 29 ff. The date assigned to the Bower Manuscript in that essay was the middle of the fifth century A.D. In the meantime, much new information has become available, necessitating a fresh consideration of the whole problem. The result is that there now appear good reasons for ante-dating the manuscript by about three-quarters of a century.

⁷⁴ See my paper on "Palm-leaf, Paper, and Birch-bark" in the *Journal, As. Soc. Beng.*, Vol. LXIX (1900), Part I, pp. 32 ff.

⁷⁵ This remark refers to manuscript books only. Letters and documents, official or private, have been found written also on wood, leather, silk, and other material, but birch-bark has never been found in use for such non-literary purposes; nor, I may add, palm-leaf.

⁷⁶ See his *Ancient Khotan*, Vol. I, pp. 185 ff.

⁷⁷ This manuscript, according to Dr. A. von Le Coq's information, formed part of a library, the manuscripts of which were found incrustated in a mass of dry mud. Some of

its folios have been cleaned, and show writing in Gupta characters, closely resembling those of the Bower Manuscript. In another part of the Qizil *Ming-oï*, in a cave temple manuscripts were found, more or less fragmentary, which were written on palm-leaves. This circumstance is of particular interest, because manuscripts written on palm-leaf (in this case of the *Corypha umbraculifera* (see my "Epigraphical Note on Palm-leaf, Paper, and Birch-bark, in the *Journal, As. Soc. Beng.*, Vol. LXIX, Part I, pp. 93 ff.) are of distinctly Indian *provenance* and thus corroborate the equally distinct Indian character of the birch-bark manuscripts. Minute fragments of a palm-leaf manuscript, which apparently proceeded from the Qutluq Urdâ Stûpa (see Chapter I) are described by me in the same *Journal*, Vol. LXVI (1897), Part I, pp. 213 ff. The manuscript, which is shown in Figs. 6 and 7 of Chapter II, was found in the same cave temple of the Qizil *Ming-oï*, but is written on paper.

⁷⁸ On this site, see Dr. Stein's *Ancient Khotan*, Vol. I, pp. 454, 458 ff., 468; also his preliminary report on his second tour, 1906-1908, in the *Geographical Journal* for July and September 1909 (Reprint, p 17).

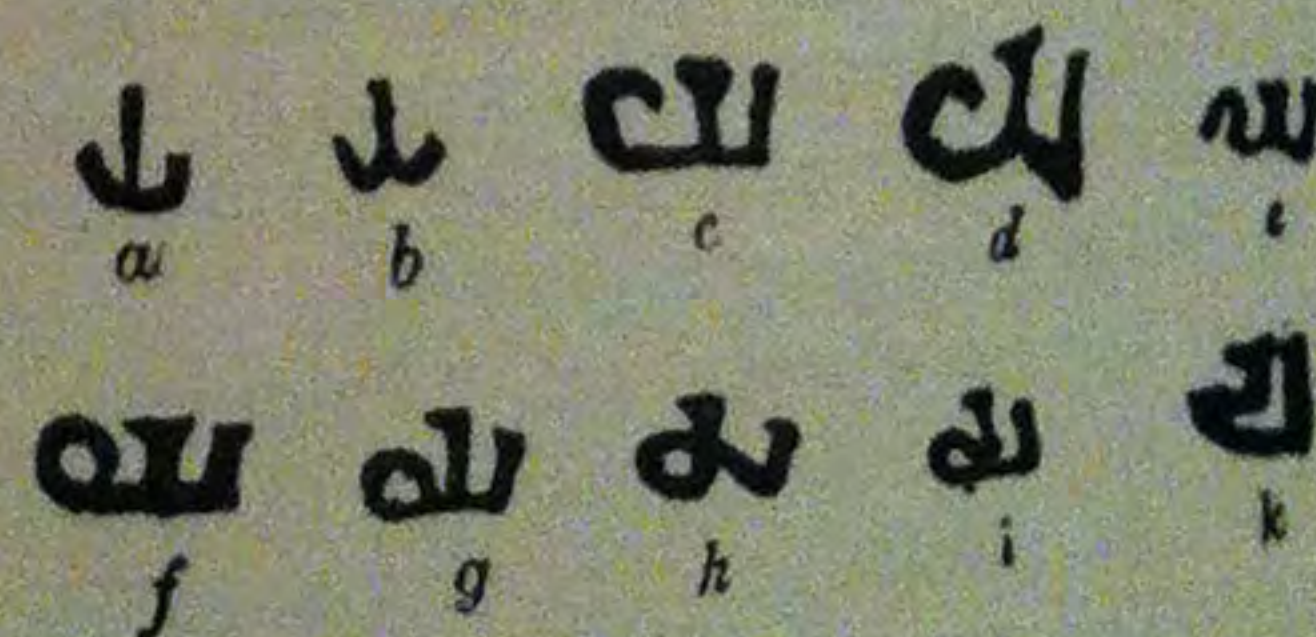
Udyāna, and imported into their new settlements. The Bower Manuscript, on the other hand, as has been shown in Chapter II (p. xx), and Chapter III (pp. xxx ff., xxxvi ff.) in all probability was written by them, in their new settlement, on birch-bark brought with them from their original home. But that, though written probably in Eastern Turkestan, their writers certainly were natives of north-western India, is proved by the occurrence in Parts I-III of a particular form of the letter *y*, hereafter called the "new form," which, as will be shown in the sequel, originated in north-western India, and which, as proved by the Weber Manuscripts and all other ancient paper manuscripts discovered in Eastern Turkestan, was never in use in the latter country.⁷⁹

In the second place, the Bower Manuscript, as shown in Chapter III, p. xxx, is the work of four distinct scribes, who wrote Parts I-III, Part IV, Parts V and VII, and Part VI respectively. The scribe who wrote the second portion (Part IV) commenced his writing on the reverse page of the last leaf of the first portion (Parts I-III), while the scribe who wrote the third portion (Parts V and VII) inscribed a remark on either of the two other portions. This circumstance proves that these three portions of the Bower Manuscript are practically contemporary writings. It is obvious that the production of Part IV cannot be earlier in date than the production of Parts I-III; and it is equally obvious that to the writer of Parts V and VII, both Part IV and Parts I-III were accessible. As to the fourth portion (Part VI), it is written for the benefit of the same person (Yaśômitra) as the beneficiary of Part VII. From the co-ordination of these facts it follows that the production of these four portions of the Bower Manuscript must be compassed by the space of about one generation. Now, as may be seen from Table II, Traverses 13-15, and as will be explained in the sequel, the writer of Parts I-III makes use, though sparingly, of the "new form" of the letter *y*, while the writers of Part IV-VII employ the "old form" exclusively. It follows hence that the production of the Bower Manuscript must be referred to the very point of time when the "new form" of *y* was beginning to come into fashion in north-western India, that is, to the time when it was being adopted by some scribes, while it was still avoided by others.

The salient point, then, of the enquiry is to determine the epoch of the introduction of the "new form" of *y* into the scribal usage of north-western India, whence the writers of the Bower Manuscript must have come. The determination of that point determines the date of the production of the Bower Manuscript within very narrow limits, practically within the space of about one generation.

Fig. 19 illustrates the gradual development of the character for *y*. Its original form in the Aśoka period, was a perpendicular stroke set on a segment, or less commonly on two segments, of a circle as in (a) and (b) respectively.⁸⁰ Later, in the Indo-Scythic period, the right side began to be straightened and angularized, while the left side began to take the form of a curl, which might turn either to the right, as shown in (c), or to the left as in (e). The former is found, almost exclusively, in epigraphic and numismatic records;⁸¹ the latter is preferred in manu-

Fig. 19.

Development of the letter *y*.

⁷⁹ The forms of *y*, which, in two varieties of script, were peculiar to Eastern Turkestan, are shown in Fig. 15, and explained in Chapter III, p. xxxiii.

⁸⁰ The latter form may be seen in the Radhia and Mathia

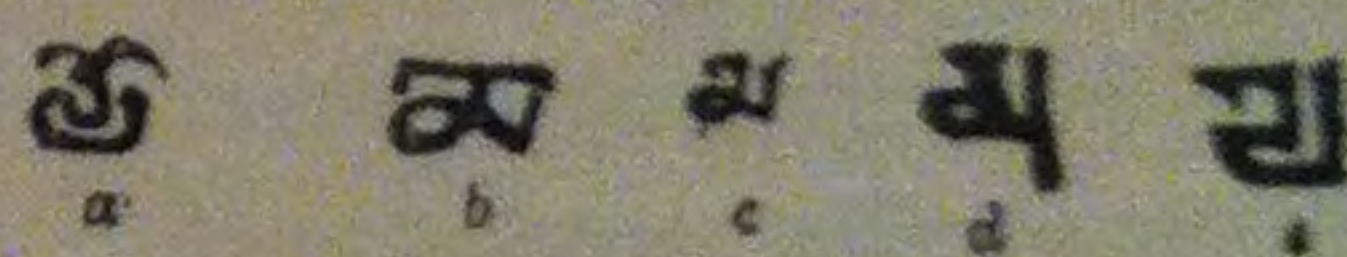
inscriptions, *Ep. Ind.*, Vol. II, p. 245.

⁸¹ Examples of the use of the sinistrorse curl may be seen in the Faridpur land-grants, *Ind. Ant.*, Vol. XXXIX (1910), p. 193, Plates I-III.

scripts (see Table I). The base line might be straight, as in (e), or bent angularly, as in (d). At this time it required two movements of the hand to write the character: one from the top of the medial line downwards, and towards the left, in order to write the curled portion of the character; the other, from the base of the medial line towards the right, in order to write its angular portion. About the same time the habit arose of joining the end of the curl with the base line, so as to form a loop, as shown in (f); and gradually the point of junction was moved to the right, so as to coincide with the point of junction of the left and right portions of the character, as shown in (g) and (h). When this stage,—a merely transitional stage, as we shall see presently,—was reached, the character would be written with a single movement of the hand. Beginning with the top of the medial straight line, the hand moved down to the base line, then upward and leftward, round the loop, back to the point of junction, and finally onward to the angle on the right. But it soon began to be observed that the letter could be written with greater speed, and with more economy of effort, if the downward movement of the hand was carried at once to the loop on the left without touching the base line at all. This slight change produced what is practically the modern form, as shown in (i) and (k). Thus, there were now three forms: the old, the transitional, and the modern. The old form persisted in the Gupta script of the southern area. The transitional form arose in the northern area about the middle of the fourth century A.D., and disappeared about the end of the sixth century. The modern form arose practically at the same time as the transitional form; but it gradually extruded the latter; and it persists to the present day in the slightly modified Nāgarī form of the letter which only projects the perpendicular below the base line.

The transitional and modern forms, or, to use an inclusive and more convenient term, the “new form” of *y* was, so to speak, invented in the western portion of the northern area. Thence it gradually spread over the eastern portion. This may be seen clearly from the epigraphic records of the Gupta period. See Fig. 20. It first appears in the year 372 A.D. in the stone pillar inscription of Vishnuvardhana at Bijayagadh (Long. 77° 20'), in *śrēyō* (a), (F.G.I., No. 59, p. 252, Plate xxxviC, l. 4), and about 400 A.D. in the rock inscription at Tusām (Long. 76° 0'), in *yōga* (b), (F.G.I., No. 67, p. 269, Plate xc, l. 3). The boundary of the two areas, as previously stated (Chap. III, p. xxviii), is E. Long. 81°. In the eastern area the new form makes its first appearance in the stone inscription of Īśvaravarman at Jaunpur (Long. 82° 43'), in *anvarāyē* (c), F.G.I., No. 51, p. 228, Plate xxxiiA, l. 2). Unfortunately this inscription is mutilated, and its date, if there was any, is lost; but it belongs to the middle of the sixth century. The first dated inscription in which the new form is found, is that of Mahānāman, in 588 A.D., at Bôdhgâyâ (Long. 85° 2'). Here both new forms, the transitional and modern, occur numerously; e.g., the former (d) in *yukta*, the latter (e) in *yēna*, (F.G.I. No. 71, p. 274, Plate xliA, l. 1).

Fig. 20.



First appearance of the new form.

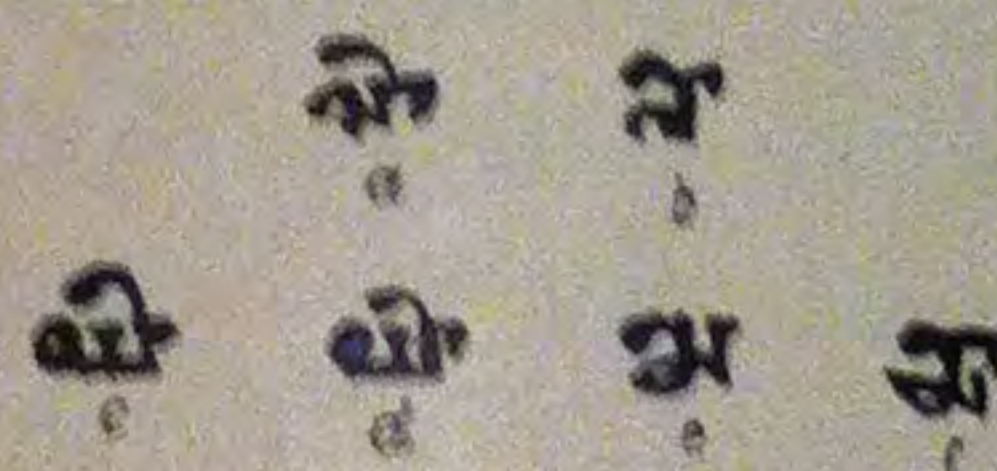
For writing the single *y*, the new form appears to have come into use about the middle of the fourth century, but for the subscript *y*, as the second part of a compound letter, it was in use about three centuries earlier, from the beginning of the Indo-Scythic

period. See Figure 21. An example of the transitional form (a) of the subscript *y*, from a Kushana inscription, is shown in Plate III, line 42, No. 3, of Bühler's *Indian Palaeography* (in the *Encyclopædia of Indo-Aryan Research*). Examples of the modern form of the subscript *y* (b) occur numerous; e.g., in Kanishka's inscription of his seventh year, i.e., in the year 51 B.C., in the *Epigraphia Indica*, Vol. I, p. 391, No. XIX.⁸² It can hardly be doubted but that it was the economy of time and effort in writing the new form of *y*, which led to its adoption in the case of the subscript *y*. But in the case of the single *y*, there operated an additional reason. This is brought out very strikingly by a certain circumstance in the use of the new form in the Bower Manuscript. This is the circumstance that in writing the syllables *yé*, *yai*, *yô*, *yau*, the new form of *y* is employed whenever the vowel (*é*, *ai*, *ô*, *au*) is made with a lateral stroke, but the old form is used when the vowel is made with a superior stroke. These vowels, namely, are indicated by attaching to the head of the consonant a certain number of slightly curved strokes, see Figure 22. These strokes may be made in two ways: either they may slant from above downward to the top of the perpendicular line, as in *lô* (a), or they may run laterally, level with the top, as in *lô* (b). It will be seen at once that if the lateral stroke was used with the old three-pronged form of *y*, its attachment to the top of the medial or the right prong was likely to interfere with the left prong, and thus to obscure the true form and meaning of the syllable (see Figure 23 e). It was to obviate this inconvenience that the fashion arose to write the syllable with the new form of *y*, whenever the lateral stroke was used, as in *yé* (e) and *yô* (f), but to retain its old form, whenever the superior stroke was employed as in *yé* (c) and *yô* (d). This rule is invariably observed by the scribe of the first portion (Parts I-III) of the Bower Manuscript. The scribes of the second portion (Part IV) and of the third and fourth portions (Parts V-VII) never use the lateral stroke, and accordingly they also never use the new form of *y*.

Fig. 21.

Subscript *y*.

Fig. 22.



Vocalic superior and lateral strokes.

The subjoined Table exhibits all the occurrences of the letter *y* in the first portion of the Bower Manuscript:—

COLUMN.	I.	II.	III.	IV.				V.	VI.	VII.				VIII.	IX.			
Parts.	Total <i>y</i> old and new.	Total <i>y</i> old.	Total old <i>yé-yau</i>	DETAILS OLD.				Total new <i>yé-yau</i> .	Total Trans <i>yé-yau</i> .	DETAILS TRANSITIONAL.				Total modern <i>yé-yau</i> .	DETAILS MODERN.			
				<i>yé</i>	<i>yai</i>	<i>yô</i>	<i>yau</i>			<i>yé</i>	<i>yai</i>	<i>yô</i>	<i>yau</i>		<i>yé</i>	<i>yai</i>	<i>yô</i>	<i>yau</i>
I . . .	179	146	9	6	1	2	0	33	32	14	1	17	0	1	1	0	0	0
II . . .	1,353	969	127	118	0	9	0	384	363	189	6	166	2	21	17	0	4	0
III . . .	79	55	6	5	0	1	0	24	23	13	0	10	0	1	1	0	0	0
I-III . . .	1,611	1,170	142	129	1	12	0	441	418	216	7	193	2	23	19	0	4	0
	583		441															
	1,028		583															

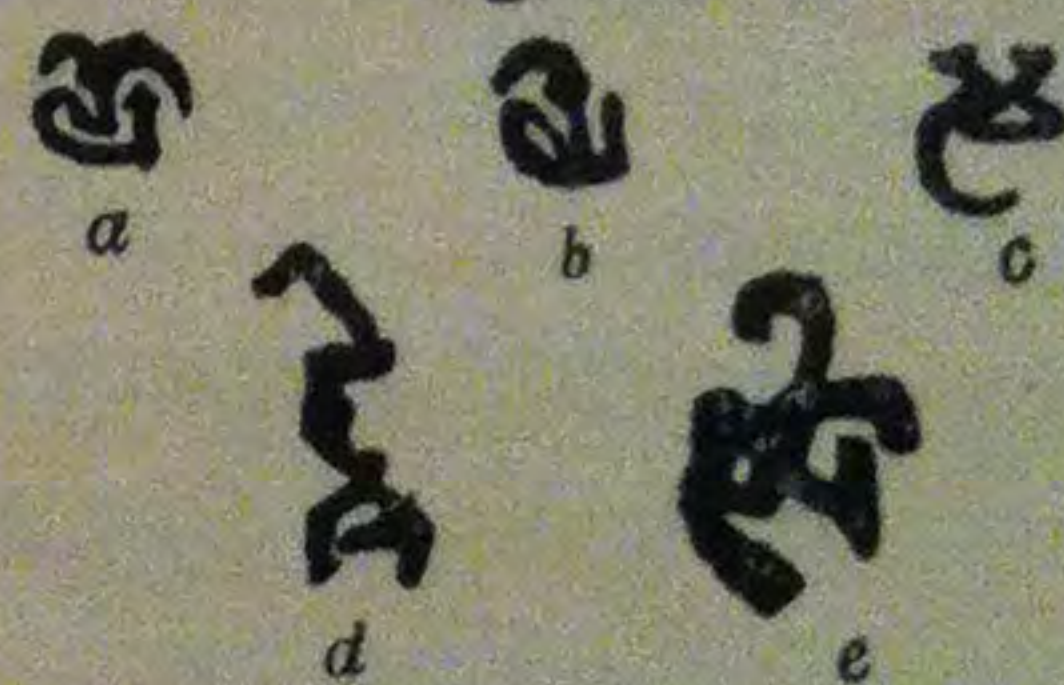
⁸² In the second line of the accompanying Plate. It is also shown in Bühler's *Indian Palaeography*, Plate III, l. 41, No. 5.—As to the Kushana dates, I follow Dr. Fleet's theory, which I now believe to be correct, that they are to be reckoned from 57 B.C., being dates of the so-called Samvat Era.

In Parts I-III the consonant *y*, old or new, and in combination with any vowel, occurs altogether 1,611 times (col. I). In 1,170 cases (col. II) the old form is used, and in 441 cases (col. V), the new form (transitional or modern). In the 1,170 cases of the old form, any vowel combination (exc. *yau*) occurs (*ya*, *yá*, *yí*, *yí*, *yu*, *yú*, *yé*, *yai*, *yó*). Among them the combination with the vowels *é*, *ai*, *ó*, occurs 142 times (col. III and detailed in col. IV), and in all these 142 cases the vowel is made with the superior stroke. On the other hand, in the 441 cases of the new form (col. V), the only vowel combinations which occur are those with *é*, *ai*, *ó*, and *au*; and in all those 441 cases the vowel is made with the lateral stroke. The total number of the combination of the vowels *é*, *ai*, *ó*, *au* with the consonant *y* is (142 plus 441, or) 583 (col. III), and that number is so large that it is out of the question to attribute to mere accident the clean distribution of the superior and lateral strokes between the old and new forms of *y* respectively: it can have been made only of set purpose. And if it is so made, the explanation of its reason, above given, appears to be the most probable. But whatever be the true explanation, the fact of the clean distribution is indisputable; and so is the other fact that the new form (transitional and modern) never occurs except in combination with the vowels *é*, *ai*, *ó*, *au*.

Turning now to the evidence of the dated, or practically dated, records of the Gupta period in north-western India, they show that the two facts, just mentioned, occur, in conjunction, only in the earliest portion of that period, that is, before 400 A.D. It is this circumstance which enables us to determine, to a degree of close approximation, the date of the writing of the Bower Manuscript. The following is a list of the inscriptions which, for the present purpose, come into consideration.

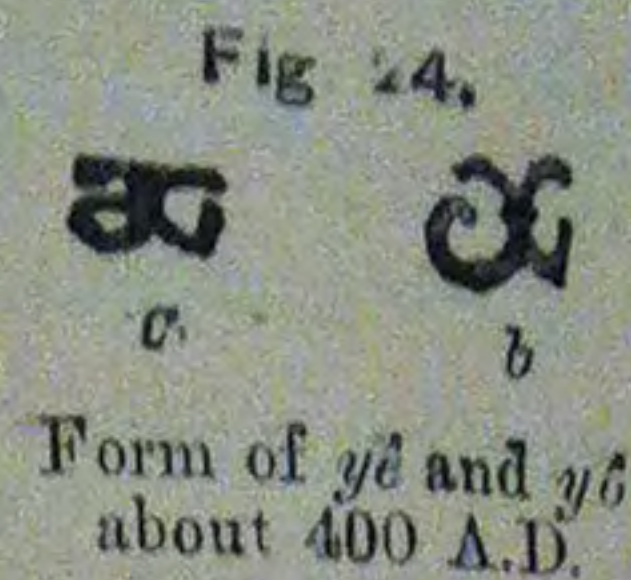
(1) 372 A.D., a calligraphic stone inscription of Vishnuvardhana, at Bijayagadh, Long. 77° 20' (F.G.I., No. 59, p. 252, Plate xxxviC). In several ways this is an instructive record. The total of the cases of *y* with any vowel (e.g., *yaśah*, *pūrvváyām*, *yúpó*, etc.) is eleven. Among them there are two cases of *yé* and one of *yó* (Fig. 23). All three are made with the lateral stroke; but *yó* (*a*), in *śréyó*, line 4, is made with the modern form, while *yé* (*b*), in *dhéyéna*, l. 3, and *vriddhayé*, l. 4, shows the transitional form. In Gupta inscriptions, as a rule, the lateral stroke is made with a comparatively straight line, while the superior stroke has a more decided curvature. In the present inscription, however, which is written in a particularly ornate style, the lateral stroke, also, is given a distinct curvature. This is seen most strikingly in the *sandhi*-syllable *mé* (*c*), in *m=étasyām*, l. 2. *Per contra*, we have a good example of the superior stroke in the syllable *ñsé* (*d*), in *vinśéshu*, l. 1. Respecting the inconvenience of using the lateral stroke in conjunction with the old form of *y*, we have a very good illustration in another, equally early, though undated, inscription at the same place Bijayagadh (F.G.I., No. 58, p. 251, Plate xxxviB). Here the syllable *yau* (*e*), in *yaudhéya*, l. 1, is made, on the left side, with the lateral stroke, curved exactly as in the syllable *mé* (*c*), above noticed, the effect being that the form of *y* is quite obscured through the interference of the lateral stroke of the vowel *au* above it; in fact, it would seem that the form of *y*, intended by the engraver of the record, was the old rather than the new. It was, no doubt, this kind of interference, which, as previously explained, led to the rule to use the superior

Fig. 23.

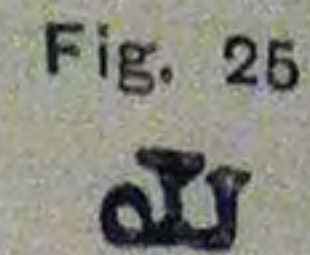
Forms of *yé* and *yó* in 372 A.D.

stroke with the old form, but the lateral stroke with the new (transitional or modern) form. But at this time we seem to see the rule still "in the making."

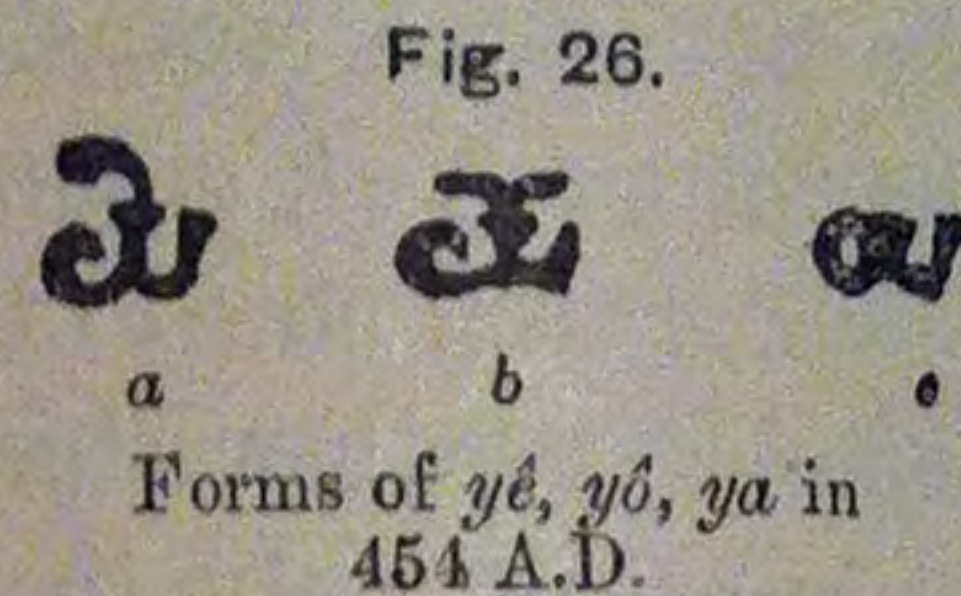
(2) About 400 A.D., a rock inscription at Tusām, Long. 76° 0', (F.G.I. No. 67, p. 269, Plate xIA). Here the total of *y* is seven; and *yó* occurs twice (Fig. 24); once in *yóga*, (a) line 3, with the new (transitional) form and the lateral stroke; and again in *pádópáyó*, (b) l. 6, with the old form and the superior stroke. In this case, the observance of the distributive rule is clearly marked.



(3) 425 A.D., a cave inscription (calligraphic) at Udayagiri, Long. 77° 50' (F.G.I. No. 61, p. 258, Plate xxxviii A). Here the total of *y* is eleven. Combinations with the vowels *é*, *ai*, *ó*, *au* do not occur. But once the new (transitional) form occurs in the syllable *ya* (Fig. 25), in *anvaya*, l. 4, showing that by this time that form was no longer limited to the combination of *y* with those vowels.



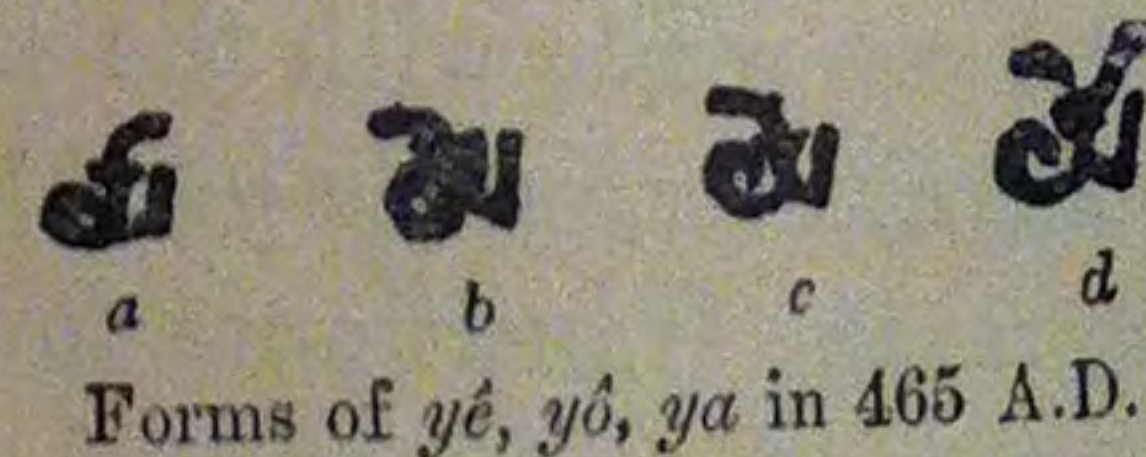
(4) 454 A.D., a stone image inscription (cursive) at Mathurá, Long. 77° 43' (F. GI. No. 63, p. 262, Plate xxxixA). The total of *y* is eight. Each, *yé* and *yó* (Fig. 26 a and b), occurs once in *áptayé*, l. 2, and *nyójjya*, l. 4, made with the old form and the superior stroke. But here, again, the new (transitional) form (c) occurs once with the vowel *a* in *yad*, line 2.



In the two preceding records⁸³ the appearance of the new form, outside the range of the vowels *é*, *ai*, *ó*, *au*, is exceptional, and perhaps not altogether above suspicion. In the following case it is quite plain and certain.

(5) 465 A.D., a copper-plate inscription (cursive) of Skandagupta, at Indôr, Long. 78° 18' (F.G.I. No. 16, p. 68, Plate ixB). The total number of *y* is twenty-five. Among them the new (transitional) form occurs five times (Fig. 27); quite plainly in *sthiráyáh*, l. 9, and more or less clearly in *vijaya*, l. 3, *prayachchhati*, l. 8, *dáyam*, l. 11, and *vṛiddhayé*, l. 4. Here we have the new form not only with *ya* and *yá* (a), but in the case of *vṛiddhayé* (b), even with the superior stroke of the vowel *é*. On the other hand, the old form occurs

Fig. 27.



once (c) with the superior stroke of *é* in *vṛiddhayé*, l. 8, and four times (d) with the superior stroke of *ó* in *ránáyanyó*, l. 6, *upayójjya*, l. 7, *yóga*, l. 9, and *yó*, l. 11. Thus, in *vṛiddhayé* we have, contrary to the original rule, the superior stroke of the vowel *é* written either way, with the new form in line 4, and with the old form in line 8. Clearly, at this time, the original rule, governing the use of the new form, had become entirely obsolete. It might be used, at pleasure, in combination with any vowel, and in combination with either of the two kinds of stroke.

(6) 482-533 A.D. This period of about fifty years includes a group of similarly worded copper-plate inscriptions (cursive), which all come from the same neighbourhood, near the boundary of the eastern area; viz., from Khôh, Long. 80° 51', dated 482, 496, 516, 528, and 533 A.D. (F.G.I. Nos. 22, 25, 27-31, pp. 100 ff.), from Kârítalâi,

⁸³ There are two other dated inscriptions, the stone pillar inscription of 415 A.D. at Bilsad, Long. 79° 16' (F.G.I. No. 10, p. 42), and the Jain inscription at Mathurá, Long. 77° 43' (*Ep. Ind.*, Vol. II, p. 210, No. XXXIX); but neither present any instance of the new form.

Long. 80° 46', dated 493 A.D. (F.GI. No. 26, p. 117), and from Majhgawān, Long. 80° 47', dated 510 A.D. (F.GI. No. 23, p. 106). At this time and place the new form, both transitional and modern, is found in not infrequent use (35 times in a total of 256 *y*, or upwards of 13·5 per cent.) irrespective of any rule. Thus we have the transitional form with *ya* in *jayasvāmi* (a), l. 3, *jaya* and *dēya*, l. 5, *yathaisha*, l. 7 (F.GI. p. 118), and *yathaisha*, l. 6, *yat* (b), l. 16, *yadd*, l. 19 (F.GI. pp. 122-3); again with *yā* in *pallikāyām*, l. 6, *nīyā*, l. 11, *pratyāyā*, l. 12 (F.GI. p. 118), and *vidhēyās*, l. 12, *pratyāyā*, l. 13, *viśṭhāyām*, l. 20, *yāvat* (c), l. 26 (F.GI. pp. 122-3); and *pratyāyās* (d), l. 20 (F.GI. p. 127); and *mayā*, l. 11 (F.GI. p. 131); again with *yu* in *yukta* (e), l. 15 (F.GI. p. 122).⁵¹ So also the old and new forms are used promiscuously with the superior stroke. Thus we have transitional *yē* in *vṛiddhāyē*, l. 17 (F.GI. p. 118), l. 8 (*ib.*, p. 122), l. 7 (*ib.*, p. 107), *lōpayēt* (f), l. 14, *prayēna*, l. 17 (F.GI. p. 122); and modern *yē* in *pāniyē*, l. 17, *yē* (g), l. 18 (F.GI. p. 108), two good and clear examples. On the other hand, we have old *yē* in *yē*, l. 10, *lōpayēt*, l. 12, *prayēna* (h), l. 16 (F.GI. pp. 118-9); *vṛiddhāyē*, l. 14, *yē*, l. 18, *lōpayēt*, l. 21 (F.GI. p. 127), l. 2 (*ib.*, p. 133). Again, we have transitional *yō* in *chhrēyō* (i), l. 15 (F.GI. p. 119), l. 16 (k, *ib.*, p. 122); and modern *yō* in *chhrēyō* (l), l. 14, *yō*, l. 16 (F.GI. p. 108), two good examples; but old *yō* in *pratyayō* (m), l. 9, *yō*, l. 20 (F.GI. pp. 118-9); *anvayō*, l. 10, *ahayō*, l. 18 (F.GI. p. 108); *nāgayōh*, l. 12, *pratyayō*, l. 17, *chhrēyō*, l. 23, *yō*, l. 28 (F.GI. pp. 127-8); *chhrēyō* (n), l. 5, *yō*, l. 9 (F.GI. pp. 133-4), all good examples. And, again, the new form is found, used at pleasure, with the lateral or the superior stroke. Thus, the transitional *yē* with the lateral stroke occurs in *nyāyēna* (o), l. 13, *yē*, l. 16, but with the superior stroke in *pratyayē* (p), l. 9 (F.GI., pp. 136-7).

(7) 530-533 A.D., the famous group of calligraphic stone inscriptions of Yaśô-dharman, at Mandasôr, Long. 75° 8' (F.GI., Nos. 33, 34, 35, pp. 142 ff., Plates xxiB, C, and xxii). These records further exemplify, in the interior of the western area, the use of the new form in combination with the superior and lateral strokes. In *bhūrayōyēna* (Fig. 29a), l. 8 (*ib.*, p. 153, Pl. xxii), we have the two kinds of stroke side by side, the superior stroke in *yō* with the old form, and the lateral stroke in *yē* with the new (transitional) form. Again in the phrase *avaj-nāyā yō*, l. 4, which occurs in duplicate (*ib.*, pp. 146 and 149), we have, in one copy (b), the two forms of *y* side by side, the old in *yā* and the new (transitional) with the lateral stroke in *yō*. In the other copy (c), both *yā* and *yō* are written with the old form, but *yō* has the superior stroke. In these calligraphically written inscriptions we find still in observance the old rule, which we saw growing obsolescent in the cursively written inscriptions of Nos. 4-6. Another, still more striking example of this conservatism, or archaism, will be noticed in No. 9.

⁵¹ Another example of a modern *yu* occurs in a copper-plate Betul, Long. 78° 22', published in *Ep. Ind.*, Vol. VIII, p. 284, inscription (cursive) of the same period, of Śaṅkshôbha, at *yudhisṭhira*, l. 22.

Fig. 28.

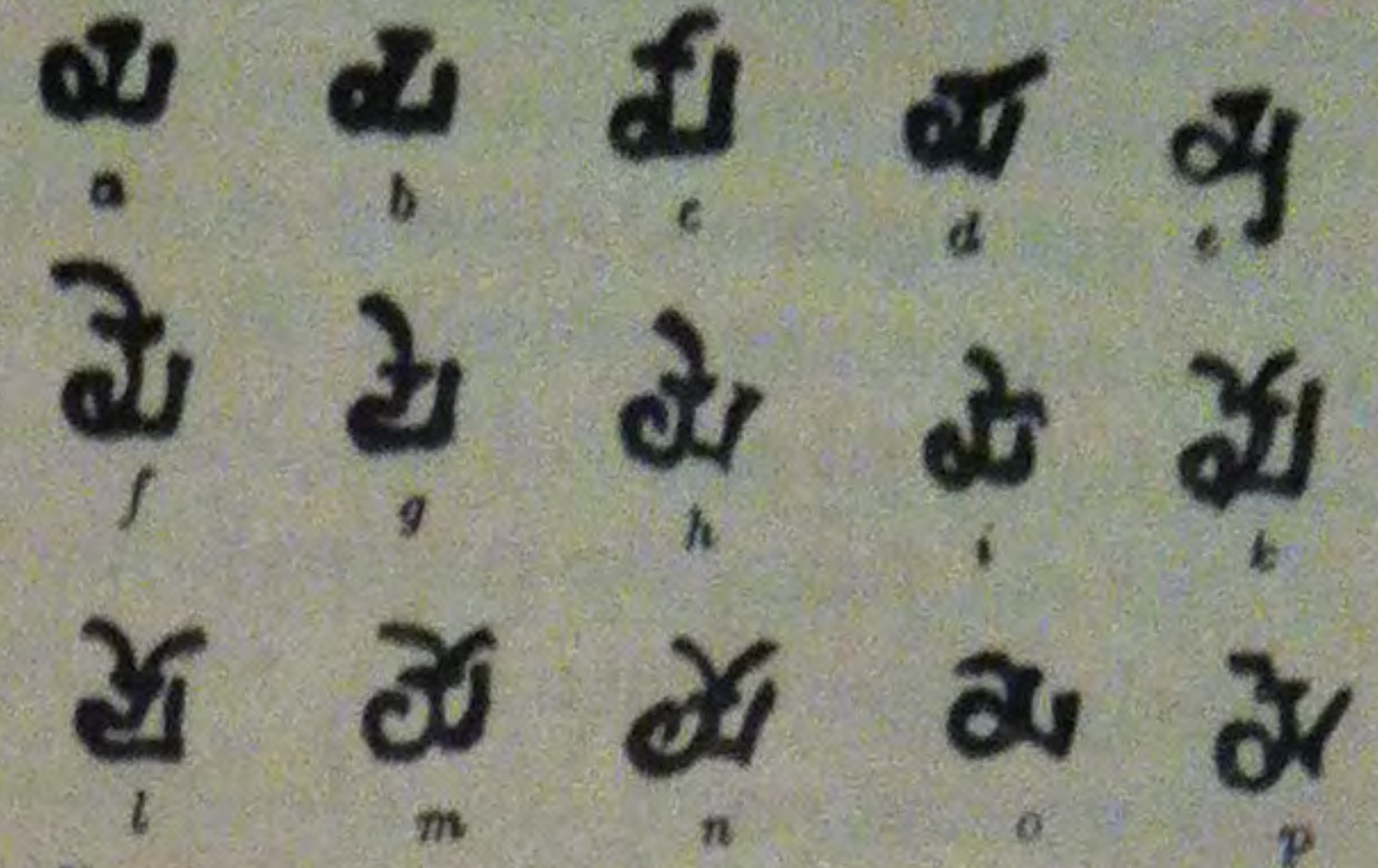
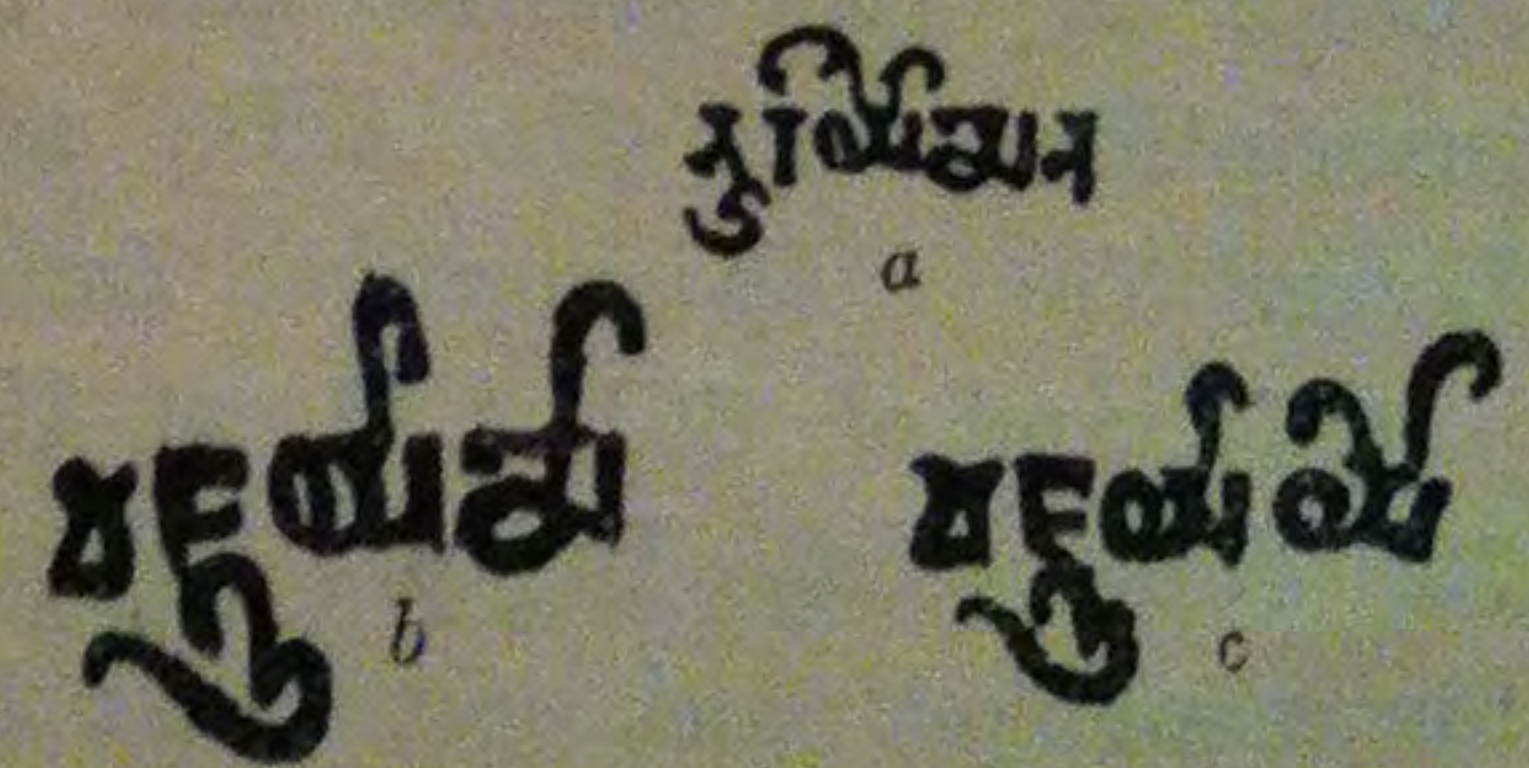
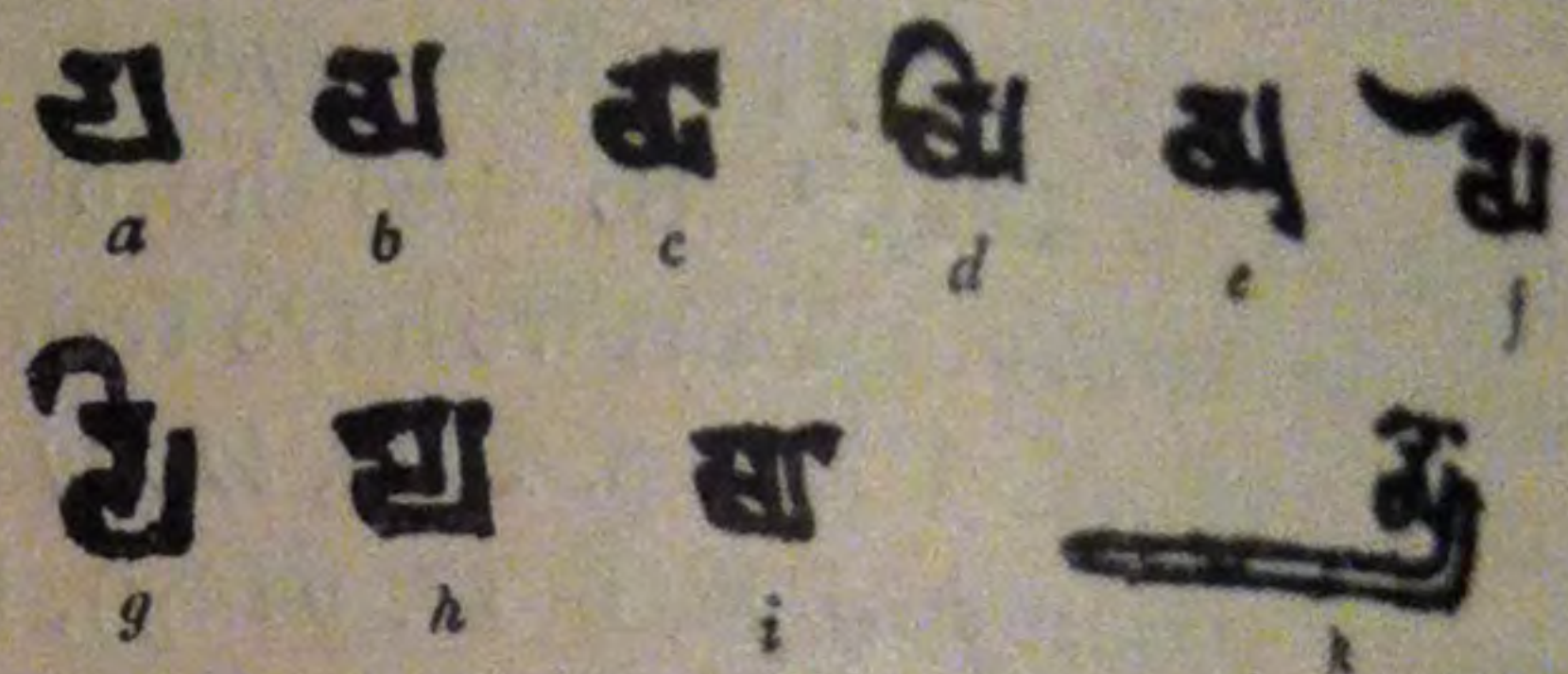
Forms of *yā*, *yu*, *yē*, and *yō* in 492-533 A.D.

Fig. 29.

Forms of *yē* and *yō* in 530-533 A.D.

(8) 550-600 A.D., a group of stone inscriptions (calligraphic) from Bôdhgaya, Long. 85° 2' (F.G.I., Nos. 71, 72, 76, pp. 274, 278, 281, Plates xliA, B, and xliiD). The first (No. 71) is dated in 588 A.D., the third, undated, must be some 40 years older. This group shows that by this time the new form had not only penetrated far into the eastern area, but had also fully superseded the old form. The latter is entirely absent from these inscriptions: among a total of 34 cases of *y*, there is not a single instance of the old three-pronged form. The transitional form still predominates over the modern, there being 26 cases of the former to 8 of the latter. In agreement with the obsolescence of the old form, the original rule respecting the distributive use of the new form is now entirely inoperative: that form is now used with every kind of vowel. See Figure 30. Thus we find *ya* in No. 71, lines 1 (modern, *a*), 2, 3 *bis*, 5, 6, 7, 8, 9 *bis*, 11 (ten times, all transitional, *b*); in No. 72, three times (modern); in No. 76, l. 1, twice transitional, once modern. Again, we have *yâ* in No. 71, ll. 4, 6, 9, 12, 13, 14 (all transitional, *c*), and *yi* in No. 71, l. 11 (transitional, *d*); and *yu*, in No. 71, ll. 1, 4 (both transitional, *e*). Further, the new form is used *ad libitum* with the superior or the lateral stroke.

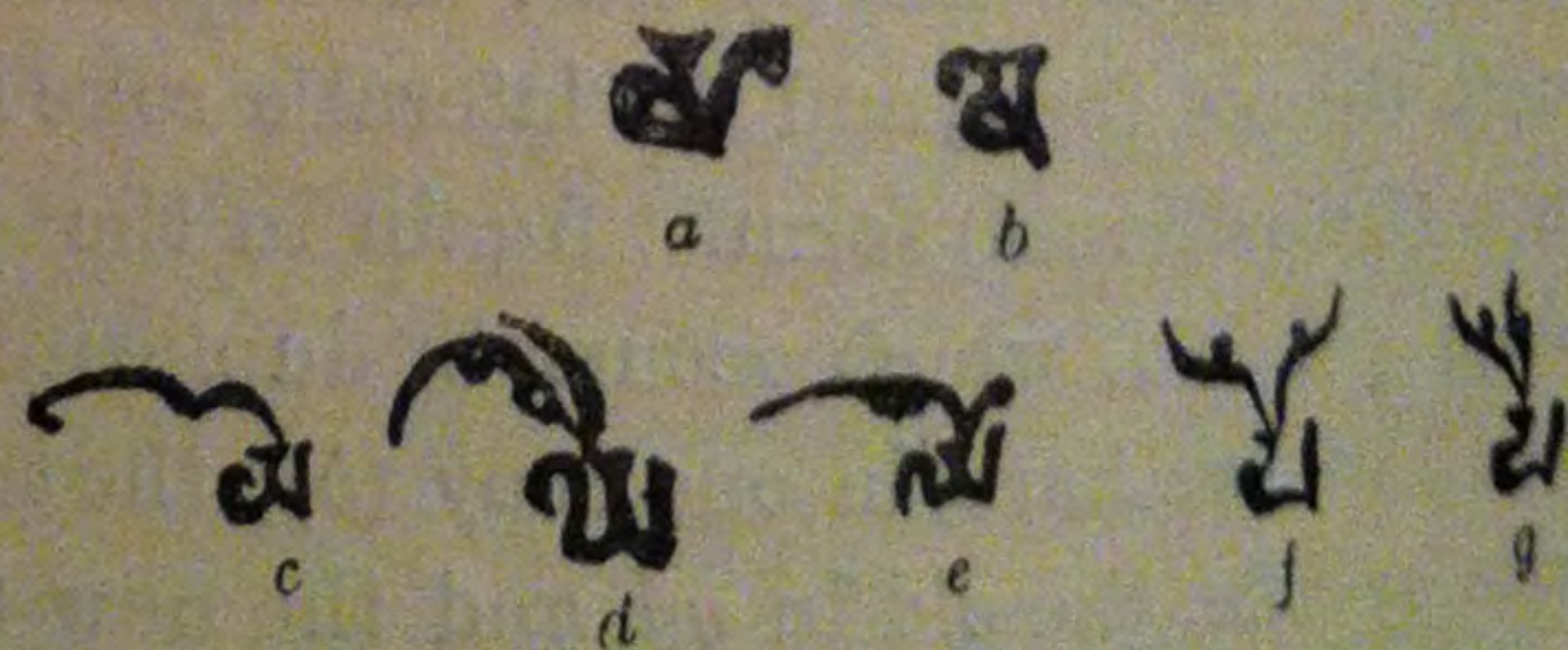
Fig. 30.

Forms of *ya*, *yâ*, *yi*, *yu*, *yé*, *yô* in 500-550 A.D.

Thus we have *yé* with the transitional form and superior stroke (*f*) in *yéna*, No. 71, l. 3, and in *aváptayé*, No. 76, l. 2; and with the modern form and superior stroke (*g*) in *aváptayé*, No. 72, and with the same form and lateral stroke (*h*) in *yéna*, No. 71, l. 1. Similarly we have *yô* with the transitional form and lateral stroke (*i*) in *yódhás*, No. 71, l. 1, and possibly also (*k*), in the superscript *y* of *acharyyô*, No. 76, l. 1, and in *sénayôr*, No. 76, l. 1. So also, we have *yau* with the transitional form and lateral stroke in *upádhyâyau*, No. 76, l. 1.

(9) Seventh century.—The prevailing conditions are, on the whole, the same as in the preceding period, except that the transitional *y* is gradually giving way entirely to the modern *y*. The last instances of it appear to occur, in 672 A.D., in two stone inscriptions of Âdityasêna, at Aphsad, Long. 85° 44', and Shâhpur, Long. 85° 43' (F.G.I., Nos. 42 and 43, pp. 200 and 208, Plates xxviii and xxixA). Here we find both *yâ* and *yé*, in the transitional form (Fig. 31 *a* and *b*); viz., *yâ*, in *prayâga*, l. 7 of No. 42, and *yé* in *vṛiddhayé*, l. 4 of No. 43. At this time the old form of *y* has become entirely obsolete, except in two archaic and highly ornate inscriptions, of 625 A.D., at Vasantgad, Long. 73° (*Epigraphia Indica*, Vol. XI, p. 187), and of 661 A.D. at Udaipur, Long. 73° (*ibid.*, Vol. IV, p. 29). Their ornate forms of *yé*, *yai*, *yô*, with the old three-pronged *y*, are shown in Fig. 31 *c*, *d*, *e*. But

Fig. 31.

Forms of *yâ*, *yé*, *yô* in 625-672 A.D.

the use of the old form of *y*, in these two inscriptions, is not their only archaism: there are several other examples of archaism in them which have been pointed out by Professor Kielhorn (*ibid.*, Vol. IV, p. 29). It is obvious, therefore, that the use of old forms is intentional: they belong to the studied ornate character of the inscriptions in question. Being archaic, the occurrence of the old form of *y* really corroborates the fact that in ordinary writing, whether calligraphic or cursive, that form of *y* was no

longer in use in the seventh century.⁸⁵ Even in ornate inscriptions the use of the old form is exceptional, as shown by the highly ornate Jhālrapāthan inscription of 689 A.D. (*Indian Antiquary*, Vol. V, p. 181), which uses the new form exclusively (Fig. 31, *f, g*). For the purpose of dating ordinary writings (as in manuscripts), therefore, the rule laid down by me in 1891 (*Journal*, As. Soc. Beng., Vol. LX, p. 90) still holds good that the form of *y* is the test, and that Indian writings must be referred before or after 600 A.D., according as they show the use of the old or of the new form of that letter.

(10) Seventh century in Nepal.—All the known Nepalese inscriptions are from the neighbourhood of Kātmāṇḍū, Long. 85° 60', which is within the eastern area. The north-western new form of *y*, comes into these records first in the second half of the seventh century, in an inscription of 677 A.D.,⁸⁶ (Bendall's *Journey in Nepal*, No. III, p. 77), and in another undated, but slightly earlier, of about 655 A.D. (Indraji's No. II, in the *Indian Antiquary*, Vol. IX, p. 174). It is always in its modern variety, and from the beginning it appears independent of the original rule, being used with any vowel as well as with either kind of stroke. Thus we have modern *ya* in No. III, l. 18, *yathā*; in No. 11, l. 5, *yah*; modern *yā* in No. III, l. 21, *dēyā*, and in No. 11, l. 13, *prāṇālikāyās*; modern *yi*, in No. 11, l. 2, *kshōbhayitvā*; modern *yu*, in No. III, l. 29, *yucarāja*, and in No. 11, l. 1, *yukta*. Again we have modern *yē*, with the superior stroke in No. III, *yē*, ll. 25-26; modern *yai* with the superior stroke, in No. 11, l. 23, *kayaitē*; modern *yō*, with the superior stroke, in No. III, l. 12, *yō*, and in No. 11, l. 22, *bhūyō*, but with the lateral stroke in No. 11, l. 4, *yō*.

The statistics, given in the foregoing paragraphs, may be summarised as follows. The distributive rule referred to in them is based on the two facts, (1) that the new form is used only with the syllables *yē*, *yai*, *yō*, *yau*, while with other syllables the old form is used; and (2) that the new form is used with those syllables when they are made with the lateral stroke, but when they are made with the superior stroke, the old form is used. About 372 A.D. this rule is "in the making"; about 400 A.D. it is in full force; from about 425 A.D. it gradually obsolesces; about 550 it has become inoperative. This information enables us to sketch, with considerable precision, the progress of the fashion of applying the new form of *y*, which was already in use in ligatures, to that letter when it occurred as a non-conjunct.

(1) This fashion arose in the western portion of the northern area of the Gupta script, about the middle of the fourth century A.D. Thence, in the latter half of the sixth century (in India, but of the seventh century in Nepal), it spread into the eastern portion of that area.

(2) The fashion was at first limited to the syllables *yē*, *yai*, *yō*, *yau*, when their vowel was written with the lateral stroke. This is shown by the way in which the new form is used in the Bower Manuscript; and the period of this stage of the fashion is fixed by the epigraphic records of Northern India (*ante*, Nos. 1 and 2) as the second half of the fourth century A.D.

⁸⁵ Examples are the calligraphic Banskhera copper-plate of Harsha, 628 A.D. (*Ep. Ind.*, Vol. IV, p. 208), and the calligraphic, but undated, Lakhamāṇḍal and Kudārkhōṭ inscriptions (*ib.*, Vol. I, pp. 10, 179), which are referable to

the middle of the seventh century.

⁸⁶ According to the local era, discovered by Professor Sylvain Lévi; see *Ep. Ind.*, Vol. V, Appendix, p. 73, note. By the Harsha era it would be 688 A.D.

(3) The limitation was soon abandoned. From early in the fifth century (*ante*, No. 3), the fashion of using the new form began to extend to any vowel combination, and to either the lateral or the superior stroke.

(4) By the end of the sixth century the new form had become so fully established in all conditions of the letter *y*, as to extrude altogether, in all ordinary writing, the old form (*ante*, Nos. 8-10).

The preceding sketch of the chronology of the origin and spread of the new form of the letter *y* determines the time of the writing of the Bower Manuscript as having been in the second half of the fourth century A.D. And it is probable that it should be sought rather nearer the beginning than the end of that period. The Table, given on p. l, shows that in the earlier portion (Parts I-III) of the Bower Manuscript the letter *y* occurs 583 times (col. III) in the vowel combinations *yé*, *yai*, *yó*, and *yau*. Outside these combinations, it occurs no less than 1,028 times (col. I). If at the time of the Bower Manuscript the fashion of extending the use of the new form of *y* to cases outside those combinations had already begun to develop, it is hardly conceivable that not a single example of such an extension should occur among those 1,028 cases. The probability, therefore, seems to be that the writing of the earlier portion of the Bower Manuscript should be placed about 350-375 A.D. And seeing that the three later portions of the Bower Manuscript (Part IV, Parts V and VII, and Part VI) must be, as shown in Chapter III, p. xxxvi, practically contemporaneous with the earlier portion (p. xlviii), it follows that the production of the whole of the Bower Manuscript must be referred to the third quarter of the fourth century A.D.

CHAPTER VIII.—SUBJECT AND CONTENTS OF THE TREATISES IN THE BOWER MANUSCRIPT.

(1) In the existing fragmentary state of Part I, it is difficult to determine the particular class of medical literature to which the treatise contained in it should be assigned. It commences with a *kalpa*, or small pharmacographic tract, on garlic (*Allium sativum*, Linn.) This tract consists of the initial forty-three verses, including between them eighteen or nineteen different, mostly more or less unusual, metres. Their list, given at the end of Chapter VII, shows that the most frequent among them is the *vasanta-tilaka* with eight verses, while the well-known *śloka* comes only second with six verses. The tract is preserved in almost perfect order; the end of every verse (except two, vv. 29 and 35) is marked with a double stroke. The concluding verse 43 alone is seriously mutilated, but fortunately its statement as to garlic (*lašuna*) being the subject of the tract (*kalpa*) is preserved. That subject is represented in verse 9 as having been communicated by the sage (*muni*) King of Kāśi (*Kāśi-rāja*) to Suśruta. By the sage, in all probability, Divôdāsa is intended, also known as the divine surgeon Dhanvantari; and Suśruta undoubtedly refers to the celebrated author of what is now known as the *Suśruta Samhitā*. But it may be noted that in the concluding verse 43, the author, whoever he was, refers to himself in the first person (*ukto mayā*).

The tract, or *kalpa*, on garlic is followed by another tract which might be described as a short *tantra*, or text book, comprising a number of very miscellaneous sections, arranged in a rather unmethodical fashion. It commences with remarks on the importance of regulating digestion (vv. 44-51), and with some pharmaceutic directions (vv. 55-59), such as are usually found in the so-called *sūtra-sthāna*, or section on the principles of medicine, of a *samhitā*. Interspersed are some alterative and aphrodisiac formulæ (vv. 52-54, 60, 61-67), such as are usually given in the *Samhitā* sections on *rasāyana* and *vājīkaraṇa*. Next comes a section with formulæ for various eye-lotions (*āśchyōtana*, vv. 68-86). This is followed by another on face plasters (*mukha-lēpa*, *valana-pralēpa*, vv. 87-105) and collyria (*añjana*, *viḍālaka*) and remedies for the hair, etc. (vv. 106-120); and finally there is a section on cough-mixtures (vv. 121-124). This second tract differs from the preceding in two respects. First, it employs only three metres, the *śloka* (44 verses), *tristubh* (30 verses) and *āryā* (6 verses); and secondly, it uses the double stroke to mark, not the end of a verse, but the end of a formula (consisting of one or more verses) or of a section. In both respects it resembles the treatise of Part II.

(2) Part II contains a practical formulary, or handbook of prescriptions, covering the whole field of internal medicine. It is called the *Nāvanitaka* or "Cream," and pro-

fesses to give, for the use of the practitioner, a selection of the best prescriptions found in the standard medical works of the time; and though these standard works are not actually named, it is possible in many cases to identify them. But in addition to these, it gives some formulæ which seem to be taken from the floating medical tradition, as well as a very few which appear to have been added by the author himself. The details may be seen in Chapters VI and VII, as well as in the subjoined Table of Parallels.

The formulary was originally divided into sixteen chapters. This, at least, was the intention of its author, as may be seen from his introduction (vv. 8 and 9), which enumerates the headings of the sixteen chapters. There is no good reason to doubt that the intention was accomplished; but whether or not the formulary was ever actually completed, it is now impossible to say, seeing that the solitary existing copy of it in the Bower Manuscript is incomplete, as the fifteenth and sixteenth chapters, as well as apparently the conclusion of fourteenth are missing.

The division of the chapters, and the distribution of the formulæ over them, are not made on any unitary principle. Some formulæ are put together on the principle of the form which is given to the medicament; others, on the principle of the purpose which the medicament is to subserve; others, again, on the principle of the kind of patients to whom the medicine is to be administered; and finally, some chapters are added describing some important "simples," vegetable or mineral. Thus, under the first principle we have the initial three chapters, which enumerate formulæ for preparing compound powders (*chūrṇa*), medicated *ghees* or clarified butters (*ghṛita*), and medicated oils (*taila*) respectively. The second principle is applied from two different aspects, according as the purpose of a medicament is, either to relieve or cure an abnormal condition of the system, or to stimulate or improve its normal functions (see note 327 on page 144). Under the former aspect a large number of formulæ are collected in the fourth chapter, referring to some twenty-two or twenty-four, not always clearly distinguished, diseases, the details of which may be seen in the Table of Contents, prefixed to this edition. The principle, however, is not quite strictly observed in the chapter; for right into the middle of it, two formulæ are pitchforked, which belong to the preceding principle (the form of a medicament), *viz.*, one (vv. 484-490) referring to the preparation of a linctus (*léha*), the other (vv. 491-493), to the preparation of a kind of medicated mead (*madhvāsava*). The reason why they are inserted here apparently is that their purpose is purgative and alterative respectively; but even in that case, their proper place would be under the second aspect of the therapeutic principle. In this connection it may also be noted that none of the formulæ in Chapter IV may be understood as a "specific." In most cases the formula is stated to cure a number of, sometimes, very different diseases; but one of these was thought to be its principal object, and this particular disease was, as a rule, indicated by being named at the head of the number. Under the second aspect of the therapeutic principle, formulæ are distributed over the six Chapters V-X, treating of enemas (*vasti-karma*, see note 142 on page 105), alteratives (*rasāyana*), gruels (*yavāgū*), aphrodisiacs (*vrishya*), collyria (*nētrañjana*), and hair dyes (*kéśa-rañjana*) respectively. Under the third principle, referring to the kind of patient, we have the three concluding chapters of the treatise, of which, however, only the fourteenth chapter on the diseases of children survives, while chapters XV and XVI, dealing with barren and child-bearing women, respectively, are missing. Intermediately there come in the three chapters

XI-XIII, containing small monographs on chebulic myrobalan, plumbago-root, and bitumen respectively.

(3) Part III is another specimen of an ancient formulary, or manual of prescriptions. It is probably, however, a mere fragment of what was, or was intended to be, a larger work. The existing fragment corresponds to the initial portion, that is, to Chapters I-III, of the formulary in Part II; for it contains formulæ put together on the principle of the form of the medicament. But though put together on that principle, the formulæ are not arranged in any consistent order: powders, *ghees*, oils, pills, tinctures and liniments are mixed up, as shown in the subjoined list:—

- | | | | |
|-------------------|-------------------------|---------------------------|-------------------|
| (1) Oils, formulæ | Nos. I, II, III, VII. | (4) <i>Ghee</i> , formula | No. VI. |
| (2) Powder, „ | No. IV. | (5) Pills, „ | Nos. X, XII, XIV. |
| (3) Liniments „ | Nos. V, VIII, IX, XIII. | (6) Linctus „ | No. XI. |

(4) TABLE OF PARALLELS IN PARTS II AND III.

Column I gives references to verses and pages of the edition; columns II and III—to identical or similar formulæ in other works; column IV indicates formulæ to which no parallels are known, and column V, formulæ or parts of formulæ which were probably written by the author himself. The initials are explained in the List of Abbreviations prefixed to this edition. For further details on parallels, see the notes on the translations.

I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.	I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.
vv. 1-10, pp. 77-8	...	...	...	a	vv. 71-75a, p. 86	BV.	SV.	...	...
vv. 11-17, p. 78	Ch.	...	...	...	vv. 78-107, pp. 87-9	...	...	no	...
vv. 18-20, p. 79	...	...	no	...	vv. 108-118, p. 90	...	D. Ch.	...	...
v. 20, p. 79	...	D. Ch.	...	...	v. 119a, p. 90	...	...	...	a
v. 22, p. 79	V.	...	...	...	v. 119b-127a, p. 91	...	D. Ch.	...	...
v. 23, p. 79	...	D. Ch.	...	...	vv. 127b-132, p. 91	...	...	no	...
v. 24a, p. 80	Ch.	...	...	...	vv. 133-143, pp. 92-3	Ch.	...	...	...
v. 24b, p. 80	...	...	...	a	vv. 144-146, p. 93	...	...	no	...
vv. 25-26, p. 80	Ch.	...	...	...	v. 147, p. 94	...	...	...	a
vv. 27-28, p. 80	...	D. Ch.	...	...	v. 148-149, p. 94	...	...	no	...
vv. 29-34, p. 81	Ch.	...	...	...	vv. 150-157, pp. 94-5	Ch.	...	...	...
vv. 35-37, p. 82	...	...	no	...	vv. 158-159, p. 95	...	...	no	...
vv. 38-42, pp. 82-3	...	D. Ch.	...	...	vv. 160-161, p. 95	...	SY.	...	...
vv. 43-55, p. 83	Bh.	...	...	...	vv. 162-165a, p. 96	...	D. Ch.	...	...
vv. 56-59, pp. 84-5	V.	...	...	...	vv. 165b-169a, p. 96	Bh.	...	...	...
vv. 60-62, p. 85	...	...	no	...	vv. 169b-176, p. 96	Ch.	...	...	...
v. 63, p. 85	BV.	...	...	...	vv. 177-185a, p. 97	...	D. Ch.	...	...
v. 64-70, pp. 85-6	...	...	no	...	vv. 188-193, p. 98	Ch.	...	...	...

I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.	I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.
vv. 199-200, p. 98 .	...	...	...	a	v. 435, p. 119 .	SY.	...	...	...
vv. 201-203, p. 99 .	Bh.	...	...	...	vv. 436-440, p. 119 .	...	D. Ch.	...	...
vv. 204-209, p. 99 .	...	V.	...	...	vv. 441-444a, p. 120 .	...	...	no	...
vv. 210-215, p. 100 .	...	...	no	...	vv. 444b-446a, p. 120 .	...	vv. 27-28	...	...
vv. 216-222, p. 100 .	...	V.	...	...	vv. 446b-447a, p. 120 .	...	D. Ch.	...	...
vv. 223-231, p. 101 .	...	...	no	...	vv. 447b-449, p. 121 .	...	...	no	...
vv. 232-240, p. 101 .	...	SY.	...	...	vv. 450-451, p. 121 .	SY.	...	...	...
vv. 241-244, p. 102 .	...	...	no	...	v. 452, p. 121 .	...	Chd.	...	...
vv. 245-250, p. 103 .	...	Chd.	...	...	v. 453, p. 121 .	V.	...	...	...
vv. 251-257, p. 103 .	R.	V.	...	...	vv. 454-459, p. 121 .	...	...	no	...
vv. 258-260, p. 104 .	...	V.	...	...	vv. 460-462, p. 122 .	Ch.	...	...	...
vv. 261-276, p. 104 .	...	D. Ch.	...	...	vv. 463-464, p. 122 .	...	V.	...	...
vv. 277-279, p. 105 .	HS.	...	...	...	v. 465, p. 122 .	...	...	no	...
vv. 280-286, p. 106 .	Bh.	...	...	...	v. 466, p. 122 .	V.	...	...	...
vv. 287-311, p. 108 .	...	...	no	...	vv. 467-468a, p. 123 .	...	v. 476-7	...	...
v. 312a, p. 103 .	...	...	...	a	vv. 469-472, p. 123 .	...	V.	...	...
v. 312b-318, p. 108 .	...	V.	...	...	v. 473, p. 124 .	...	...	no	...
vv. 319-323, p. 109 .	...	D. Ch.	...	...	v. 474, p. 124 .	Bh.	...	...	...
v. 324, p. 109 .	...	...	...	a	v. 475, p. 124 .	...	Bh.	...	...
vv. 325-328, p. 109 .	...	D. Ch.	...	...	vv. 476-479, p. 124 .	Bh.	...	...	...
vv. 329-343, p. 110 .	Bh.	...	...	...	vv. 480-481, p. 125 .	...	...	no	...
v. 344, p. 111 .	...	...	no	...	vv. 482-483, p. 125 .	...	D. Ch.	...	...
v. 345, p. 111 .	...	...	...	a	vv. 484-495a, pp. 125-6 .	Ch.	...	...	...
vv. 346-366a, p. 111 .	...	...	no	...	vv. 495b-496a, p. 126 .	...	V.	...	...
vv. 366b-382, p. 113 .	...	D. Ch.	...	...	vv. 496b-499, p. 127 .	Ch.	...	...	...
vv. 383-389, p. 114 .	Ch.	...	...	...	vv. 500-509a, pp. 127-8 .	...	...	no	...
vv. 390-398, pp. 114-5 .	...	...	no	...	vv. 510-511a, p. 128 .	KS.	Chd.	...	...
pp. 399-401a, p. 115 .	Bh.	...	...	...	vv. 511b-513a, p. 129 .	...	...	no	...
vv. 401b-403, p. 115 .	...	...	no	...	v. 514, p. 129 .	KS.	...	...	...
vv. 404-405, p. 116 .	...	D. Ch.	...	...	vv. 515-521, p. 129 .	...	...	no	...
v. 406, p. 116 .	KS.	...	...	...	vv. 522-523a, p. 130 .	KS.	...	...	...
vv. 407-412, pp. 116-7 .	Bh.	...	...	...	vv. 523b-524, p. 130 .	...	D. Ch.	...	...
vv. 413-417, p. 117 .	...	...	no	...	v. 525, p. 130 .	KS.	...	...	...
vv. 418-428, p. 118 .	...	V.	...	...	v. 526a, p. 130 .	...	...	no	...
vv. 429-431, pp. 118-9 .	...	...	no	...	vv. 526b-533a, pp. 130-1 .	KS.	...	...	...
vv. 432-433, p. 119 .	...	SY.	...	...	vv. 533b-534a, p. 131 .	SY.	...	...	...
v. 434, p. 119 .	...	...	no	...	vv. 534b-537a, p. 131 .	Bh.	...	...	...

I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.	I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.
vv. 537b-538a, p. 132	KS.	...	...	...	vv. 830b-833a, p. 157	...	...	no	...
vv. 538b-544, p. 132	...	...	no	...	v. 833b-834a, p. 157	S.	...	...	...
vv. 545-546, p. 132.	KS.	...	...	...	v. 834b-835a, p. 158	...	S.	...	...
vv. 547-548, pp. 132-3	...	...	no	...	vv. 835b-838a, p. 158	...	...	no	...
vv. 549-562a, p. 133	...	Fragmenta.	...	...	vv. 838b-840a, p. 158	...	S.	...	...
vv. 562b-565a, p. 133	KS.	...	...	...	vv. 840b-844a, pp. 158-9	...	...	no	...
vv. 565b-568, p. 133	...	Fragmenta.	...	...	vv. 844b-846a, p. 159	Ch.	...	...	...
vv. 569-574, pp. 133-4	...	...	no	...	vv. 846b-849, p. 159	...	...	no	...
v. 575, p. 134	V.	...	...	...	v. 850, p. 159	...	...	...	A.
v. 576, p. 134	...	...	no	...	vv. 851-855, p. 160	...	...	no	...
v. 577, p. 134	...	V.	...	...	vv. 856-857, p. 160	...	D. Ch.	...	...
v. 578, p. 134	...	S.	...	...	vv. 858, p. 161	...	...	no	...
v. 579, p. 135	...	SY	...	...	vv. 859-860a, p. 161	...	D. Ch.	...	...
vv. 580-584, p. 135	...	...	no	...	vv. 860b-868, pp. 161-2	...	...	no	...
vv. 585-587, p. 135	...	D. Ch.	...	...	vv. 869-870, p. 162	...	D. Ch.	...	...
vv. 588-592, p. 136	...	...	no	...	vv. 871-879, p. 162	...	...	no	...
v. 593, p. 136	...	Chd.	...	...	vv. 880-882, p. 163	...	A. H.	...	...
v. 594, p. 136	...	D. Ch.	...	...	vv. 883-886, p. 163	...	...	no	...
vv. 595-602, pp. 136-8	...	...	no	...	v. 887, p. 163	...	D. Ch.	...	...
v. 603, p. 138	Ch.	...	...	...	vv. 888-898, p. 164	...	...	no	...
vv. 604-641, pp. 138-43	...	...	no	...	vv. 899-900, p. 165	...	D. Ch.	...	...
vv. 642-644, p. 143	Bh.	...	...	...	vv. 901-916, p. 165	...	...	no	...
vv. 645-649, p. 143	Ch.	...	...	...	vv. 917-949, pp. 166-9	...	A.	...	...
vv. 716-741, pp. 144-6	...	...	no	...	vv. 950-967, pp. 170-1	Ch.	...	...	...
vv. 742-743, p. 146	Ch.	...	...	...	vv. 968-976, pp. 171-2	...	...	no	...
v. 744, p. 146	...	...	no	...	vv. 1011-1040, pp. 172-4	...	...	no	...
vv. 745-752, pp. 146-8	Ch.	...	...	...	v. 1041, p. 175	...	V.	...	...
vv. 753-758, p. 148	...	A.	...	...	vv. 1042-1059a, pp. 175-6	...	...	no	...
vv. 759-782, pp. 148-50	...	...	no	...	vv. 1059b-1060a, p. 176	Bh.	...	...	...
v. 783, p. 151	...	...	...	...	vv. 1060b-1078, pp. 176-8	...	...	no	...
v. 784, p. 151	...	...	no	...	vv. 1079-81, 4, 5, 8, p. 178	...	V.	...	...
vv. 785-801, pp. 151-4	Bh.	Ch.	...	...	vv. 1080, 2, 3, 6, 7, pp. 178-9	...	...	no	...
vv. 802-804, p. 154	Bh.	...	...	...	vv. 1089-1109, pp. 179-80a	...	...	no	...
vv. 805-818, pp. 155-6	...	...	no	...	vv. 1110-11, 13, 19, pp. 180a-b	...	V.	...	...
v. 819, p. 156	Ch.	...	...	...	vv. 1112-14, 18, pp. 180a-b.	...	...	no	...
vv. 820-828, p. 157	...	...	no	...					
vv. 829-830a, p. 157	S.	...	...	...		

I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.	I Ref. to verses and pages.	II identical.	III similar.	IV no par.	V author.
Part III.									
vv. 1-36, pp. 185-7	no	...	vv. 55-56, p. 189	A. H.	...	...	...
vv. 37-53, p. 188	...	SY.	...	...	vv. 57-60, p. 189	...	...	no	...
v. 54, p. 189	no	...	vv. 61-62, p. 190	...	SY.	...	...
					vv. 63-72, pp. 190-1	...	...	no	...

(5) Parts IV and V contain two short manuals of *Pāśaka-kévali*, or cubomancy, that is, the art of foretelling a person's fortune by means of the cast of dies (*pāśaka*, or as spelled in Pt. IV, l. 2, p. 192, *prāsaka*). The mode of exercising this art can be best seen from the manual in Part IV, which is practically complete, while the manual in Part V is apparently very fragmentary. The former manual shows that the die which was used was marked with the four numbers 1, 2, 3, 4; and that each cast, or rather (as we shall see) set of casts, consisted of three of these numbers. Accordingly there could be no more than sixty-four possible casts. These are shown in the subjoined table.

Number of Groups.	Names of Groups.	Figures of Groups.	Number of Variations.
First Class of Four Groups with the same figure thrice.	Chañtayānta (?)	444	1
	Navikkî	333	1
	Paṭṭabandha	222	1
	Kālaviddhi	111	1
Second Class of Twelve Groups with the same figure twice.	Śāpata	443, 434, 344	3
	Vṛisha	442, 424, 244	3
	Kūṭa	441, 414, 144	3
	Mālî	334, 343, 433	3
	Viṭî	332, 323, 233	3
	Kāṇa	331, 313, 133	3
	Prêshyâ	224, 242, 422	3
	Sajā	223, 232, 322	3
	Pāñchî	221, 212, 122	3
	Karṇa	114, 141, 411	3
	Chuñchuna	113, 131, 311	3
	Kharî	112, (121), (211)	3
Third Class of Four Groups with the same figure once.	Bahula	432, 324, 243, (234), 423, 342	6
	Bhadra	421, 214, 142, (124), 412, 241	6
	Śaktî	341, 413, 134, 143, 314, 431	6
	Dundhubhî	321, 213, 132, 123, 312, 231	6
Total of variations of casts			64

All but four of these sixty-four variations occur in Part IV. The four which are missing (121, 211, 234, 124, put in brackets) have clearly been omitted through some inadvertence on the part of the scribe; viz., 234 on the reverse of the second folio, 124 on the obverse of the third folio, and 121 and 211 at the very end of the manuscript, on the reverse of the fifth folio. In Part V less than one-third (20 out of 64, shown in antique type), occur. No fewer than forty-four variations are missing; viz., the whole of the first class of groups (444, 333, 222, 111); one-half of the second class, namely, the whole groups *viñi*, *kāṇa*, *sajā*, *pāñchī*, *chuñchuna*, and *khari*; and nearly the whole of the third class, only two variations (243 and 412) being preserved. What the cause of this mutilation, whether intentional or other, may have been is not apparent.

At the end of the *Pāsaka-kévalī* manuscript, No. 70 of the Deccan College (viz. A in the list on page 214, in the Appendix to Part V), there is an appendix written in the modern Gujarātī vernacular language, which explains the *modus operandi* in this kind of cubomancy. It runs as follows:—

Tathae sakanāvalī-nō pāsō nākh'vā-nī viddhi lakhīi chhai || pāsō sakan jōlē, tihā-raim 3 vār nāmkhīi | pehelō padē tēh'nūm saik'dam gañī || tēkim pagadām padē, tō 100 gañī || bē pagadām padē dhuri, tō 200 gañī || traṇi pagadām padē pehelūm, tō 300 kahīi || chyār pagadām padē, tō 400 gañī || phani pāsō bijivār nāmkhīi tihārai pagadām padē, tō ēk āmk ek'dō gañī || im bē pagadūm padē, tō 2 || traṇi padē, tō 3 || chyār padāi, tō 4 || im trījī-vār paṇi jānavum || pachhē pehelum saikadum || anai bijī trījī-bār-nā āmk ēkatthā kijai || jetalā āwē, tetalā upari āmk jōinaī sakan jōiē || etalē | pehalum ēk padē | pachhi bē padē | pachhi trījī-bār traṇi padē || tō 123, ēk sō nai tritī-nō āmk thāi || im pehelum bē padē | pachhē ēk padē pachhē traṇi padē | tō 213, bē saim nai tēr-nō āmk āwai || ēṇi rītaim jōvum sahi ||

This may be thus translated: "The mode of throwing the divination die (*pāsō*, singular) is as follows. When the die is wanted for an oracle (Skr. *śakuna*), it must be thrown three times; and the first cast must be counted as hundred. Thus, if one pip (*pagadām*, sing.) falls, it counts 100; if two pips (*pagadām*, plur.) fall, they count 200; if three pips fall in the first cast, they represent 300; if four pips fall, they count 400. Next, the die (*pāsō*, sing.) is thrown for the second time. Then, of the pips that fall, one counts as the figure (*āmk*) 1; similarly if two pips fall, they are 2; if three fall, 3; if four fall, 4. In the same way, the cast of the third time must be understood. Finally, the hundred of the first throw, and the figures (*āmk*) of the second and third, must be placed together. Whatever (combined) figure results, upon that the oracle must be pronounced. Thus, if first one falls, next two fall, next, at the third throw, three fall, then it is the (combined) figure 123, one hundred and twenty-three. Similarly, if at the first (cast) two fall, next one falls, next three fall, the result is the figure 213, two hundred and thirteen. This is the correct manner of proceeding."

It is clear from this explanation that in the ancient Indian art of cubomancy only a single die was used; and that the die indicated only the four numbers, respectively represented by 1, 2, 3, 4 pips on four different facets. A die in the form of a tetrahedron would satisfy these conditions; but the existence of a tetrahedral die at any time is, I believe, an unheard-of thing. It seems probable, therefore, that the die was one of that elongated kind, with four long sides and two rounded ends, which is known as *talus* or *astragalus*, or knucklebone, and on which the four long sides were marked with pips. If the die had the ordinary cubical form, two of its six equal sides would

have borne no pips; and then there would have been the not infrequent chance of one of the two unmarked facets turning up in any of the three consecutive casts. In such a case, of course, the throws would have had to be repeated, till some time the occurrence of such an eventuality, which is not even alluded to. At the same time there occurs in the Introduction to the manual in Part IV (l. 3, on page 192) an obscure phrase which may point to the die having had the form of a six-sided cube. There the dice are described as *kumbhakāri-mātaṅga-yuktā*, lit., "joined with a *kumbhakāri* and a *mātaṅga*." This may mean marked with the figures of a *kumbhakāri*, or potter woman (or the girl *kumbhakāri*), and *mātaṅga*, or elephant (or Chanḍāla man). These two figures might have stood on the two sides not marked with pips. Another explanation of the phrase, however, is possible which is given in note 1 on page 197. There is also another difficulty in the circumstance that the introduction (ll. 2, 3 on page 192) speaks of dice in the plural number, *prāsakā[h] patantu*, "may the dice fall." But the reference may very well be, not to the number of several dice, but the number of casts of a single die. If more than one die should really have been used, the number of the dice, of course, would have been three; and each act of divination would have required but a single cast, the three dice being thrown at one time. They would probably have been loose; though at the present day the dice of the Indian cubomancer, which moreover are four in number, are strung on a short thin iron rod. A description of this kind of modern cubomaney is given on pp. 44-46 of Peterson's Third Report on the Search of Sanskrit MSS. in the Journal of the Bombay Branch of the Royal Asiatic Society, Extra No. for 1887, in connection with a work called *Ramalāmṛita*, or "the fine art of Ramal." The Arabic term *ramal* signifies geomancy, or any kind of divination, specially cubomaney. The performer always, or often, is a Muhammedan. In the above-mentioned case, reported from Bombay, the four dice seem to have been immovably fixed on the rod; but in a case examined by me in Calcutta, they were loosely strung on the rod round which they could rotate freely, though they were secured from falling off the rod by two rod-heads. This mode of cubomaney, however, seems to be a comparatively modern importation into India, and is, therefore, hardly relevant to the understanding of the mode of cubomaney which forms the subject of the two manuals.

These two manuals are quite independent works. Their oracles, though of course touching on similar subjects, are totally different compositions, of much greater length in Part V than in Part IV. In early Indian times several cubomantic manuals appear to have been current. The manuals, which survive at the present day and are ascribed to the authorship of the Sage Garga, possess a few striking points of agreement with the manual in Part V. The subject of these agreements is fully discussed in the appendix to Part V, pp. 214 ff. The evidence points to the existence of three rather widely different recensions of what may possibly have been originally a single manual. The latter might possibly be represented by the recension preserved in the Bower Manuscript. This recension is of considerable antiquity. As shown in Chapter VI, it may have existed as early as the second century A.D. (*ante*, p. lxi), and of course it may go back to a much earlier time. The other existing recensions cannot be older than the end of the fourth century, because in the fifth verse of their introduction they speak of cubomancers as possessing *horā-jñāna*, or the knowledge of the doctrine of *horā*

(Greek *ἄρ*), or lunar mansions (latin *domus*). The first mention of that doctrine has been traced by Professor Jacobi (in his dissertation *de astrologiae indicæ hōrā appellatæ originibus*, Bonn 1872) to Firmicus Maternus, who lived about 335-350 A.D. in the West, whence it came to the knowledge of the Indians. For some further information on the subject of Indian cubomancy the student may be referred to A. Weber's paper in the *Monatsberichte der Kgl. Preussischen Akademie der Wissenschaften*, Berlin, 1859, pp. 158 ff., and in the *Indische Streifen*, vol. I, pp. 274 ff.; also to Dr. J. E. Schröter's Inaugural Dissertation on *Paśaka-kévalī*, ein indisches Würfelorakel (Borna, 1900). The latter contains a critical edition of the recension of the manual on cubomancy, ascribed to Garga.

(6) Parts VI and VII contain two different portions of the same text, which is a *Sūtra* or *Dhāraṇī* referring to a charm protective against snakebite and other evils. The name of the *Sūtra* is *Mahāmāyūrī Vidyārājñī* (scl. *Dhāraṇī*), lit., the 'great peacock' queen of charms. It apparently takes its name from the fact that the peafowl (*mayūra*) is the great traditional enemy of the snake. It is a charm of great repute among the Buddhists, and is included in the highly valued collection of *Dhāraṇīs*, called *Pañcha-rakshā*, or the Five Protective Charms. In this collection it usually takes the third place (see Catalogue of Buddhist Sanskrit MSS. in Cambridge, No. 1325, p. 48, etc; Catalogue of Sanskrit MSS., Part II, in Oxford, No. 1447, p. 257, and Catalogue of Buddhist Sanskrit Literature in Calcutta, No. B4, pp. 164-8 and p. 173); but sometimes the second (see the Oxford Catalogue, No. 1448, p. 259, and apparently the Cambridge Catalogue, No. 1652, p. 162), or the fourth (see Catalogue of Buddhist Sanskrit MSS. of the Royal Asiatic Society, No. 56, p. 42). The *Pañcha-rakshā* itself is sometimes found included in certain larger *Dhāraṇī-mantra-saṃgraha*, or Collections of *Dhāraṇī* charms (see the Oxford Catalogue, No. 1449, p. 260, and the Calcutta Catalogue, No. B5, pp. 80, 292).

In the *Pañcha-rakshā* collection, however, the *Mahāmāyūrī* charm exists in a greatly expanded form. This expanded recension, as may be seen from the Chinese translations of the charm, appears to have developed in the course of the fifth or sixth centuries A.D. There are six such translations enumerated in Nanjio's Catalogue of the Chinese Tripitaka, Nos. 306-311. Three of them are based on the expanded recension of the *Sūtra*, while the three others exhibit the *Sūtra* in a more primitive and much less developed form. To the former belong two translations of the eighth century A.D. (Nos. 306 and 307), done by It-sing in 705 A.D., and Amôghavajra in 745-771 A.D. respectively; and a somewhat shorter translation of the sixth century (No. 308), made by Saṅghapāla in 516 A.D. The three more primitive recensions (Nos. 309, 310, 311) belong all to the fourth century A.D., viz. two by Poḥ Śrīmitra under the Eastern Tsin dynasty, 317-420 A.D., and one by Kumārajīva under the later Tshin dynasty, 384-417 A.D. At the time these six translations were made, the *Mahāmāyūrī* *Sūtra* seems to have still existed as a separate work, and not yet to have formed a component part of the *Pañcha-rakshā* collection. That collection would seem to have originated in Bengal under the Buddhistic Pāla dynasty, not earlier than the tenth or eleventh centuries A.D. For another of the later component parts of the *Pañcha-raksha*, namely, the *Mahā-sahasra-pramardinī* *Sūtra*, was translated into Chinese (Nanjio's No. 784), when it was still a separate work, by Sh'hu (Dānapāla?) about 980-1000 A.D., while the *Pañcha-rakshā* collection itself, being a late production, does not seem to have been translated into Chinese at all.

The relative extent of the two recensions of the *Mahāmâyûrî* Sûtra, in the *Pañcharakshâ* collection and the Bower Manuscript, may be seen from the Appendix to Parts VI and VII (pp. 240a ff.) Those two Parts include only an extremely small portion (about one-seventh) of the modern expanded version of the Sûtra, viz. its second and third section. The former relates the story of the monk Svâti and his recovery from the fatal bite of a snake through the application of the Mahâmâyûrî charm; the latter, the story of the obtainment of that charm by Buddha in one of his former births (*jâtaka*) as the king of the peacocks (*mayûra-râja*). These two stories would seem to have made up the whole extent of the original Sûtra before its subsequent enormous accretions. From the Bower Manuscript it appears that the copy of the Sûtra included in it was written for the benefit of a person (probably a monk or abbot), called Yaśômitra, whose name, as usual in such cases, was inserted at the end of the copy. This copy, being written on birch-bark of an inferior quality (see Chapter II), after a time became seriously damaged: the obverse of the folio, on which the second story commenced, flaked off entirely, and that portion of the manuscript which contained the first story appears to have been destroyed altogether. The latter was now replaced by a fresh copy, written on a new supply of birch-bark of a superior quality. This fresh copy is the existing Part VI of the Bower Manuscript.

I. MAP OF EASTERN TURKESTAN

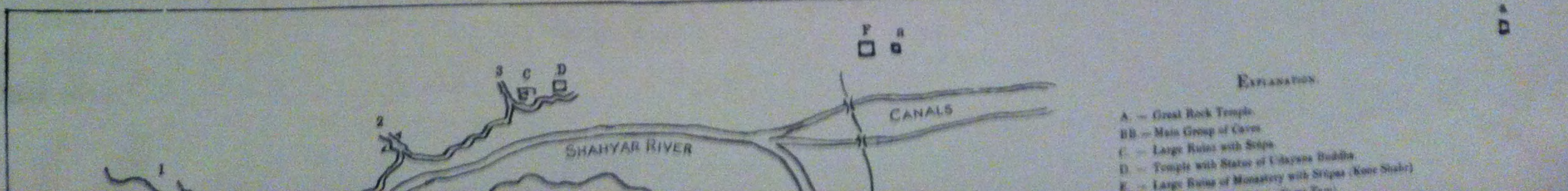
(From the Geographical Journal, 1893.)

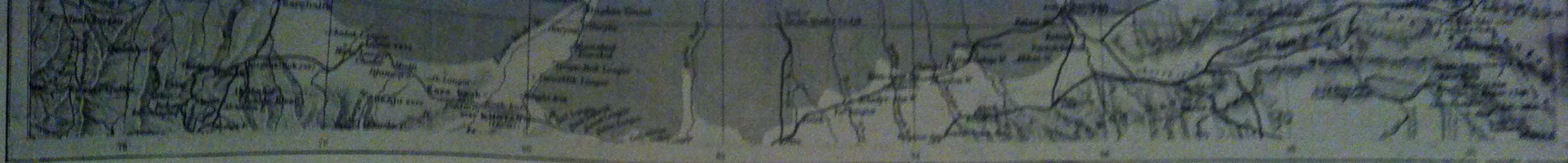
Scale 1:250,000



II. ROUGH PLAN OF THE MINGOI OF QUM TURA

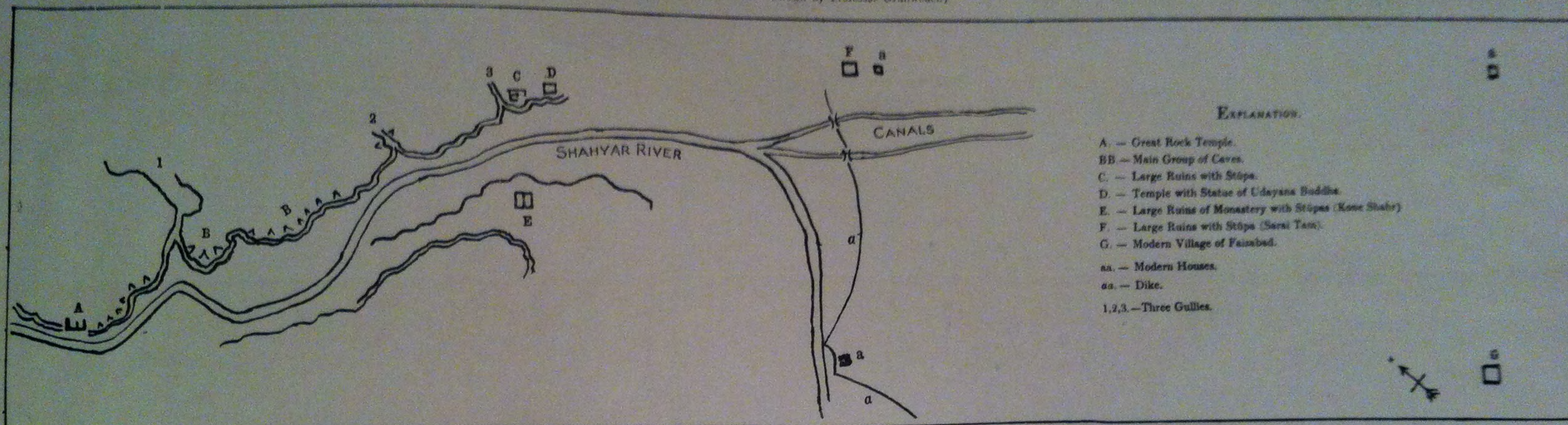
(Reduced from a Sketch by Professor Grunwedel.)





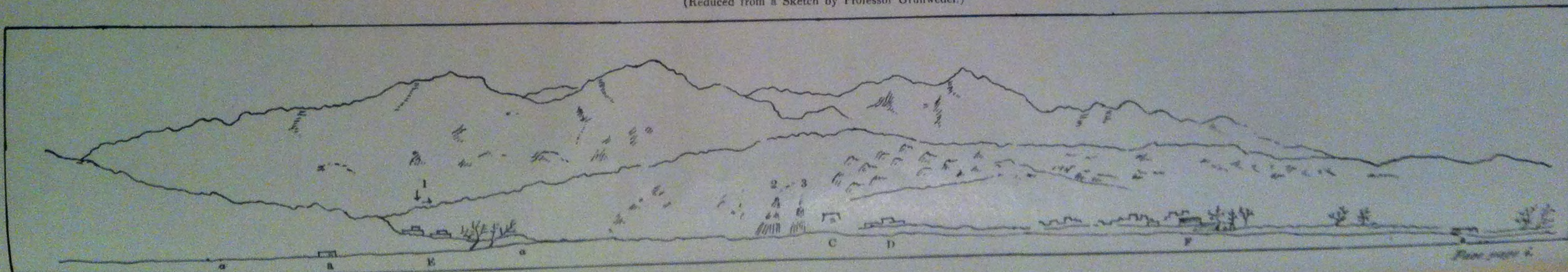
II. ROUGH PLAN OF THE MINGOI OF QUM TURA

(Reduced from a Sketch by Professor Grunwedel.)



III. SKETCH VIEW OF THE MINGOI FROM NNW. OF QUM TURA

(Reduced from a Sketch by Professor Grunwedel.)



I. MAP OF EASTERN TURKESTAN

(From the Geographical Journal, 1893.)

(Scale, 1:3800000.)



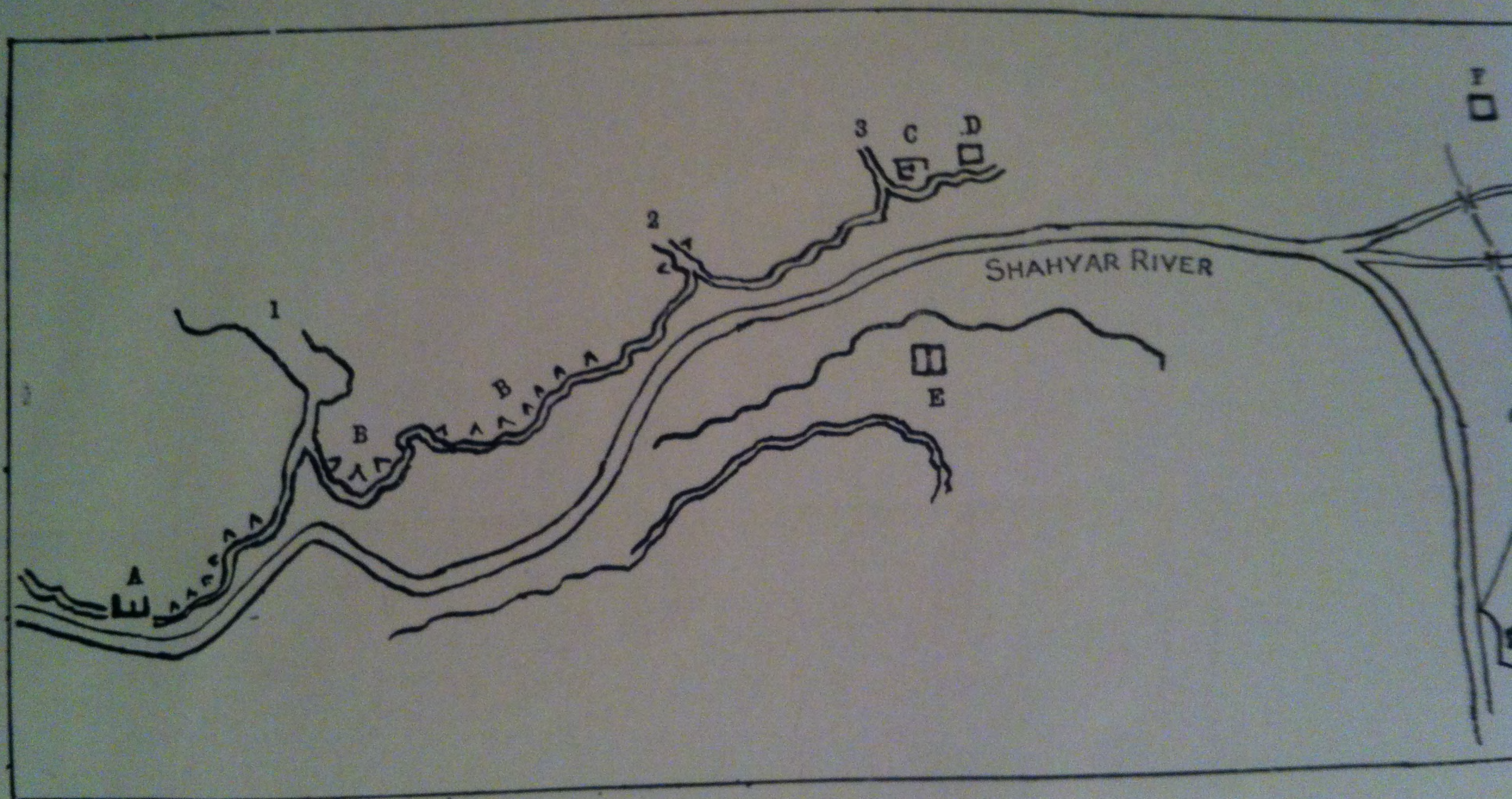
II. ROUGH PLAN OF THE MINGOI OF QUM TURA

(Reduced from a Sketch by Professor Grünwedel.)



II. ROUGH PLAN OF THE MINGO

(Reduced from a Sketch by Professor)

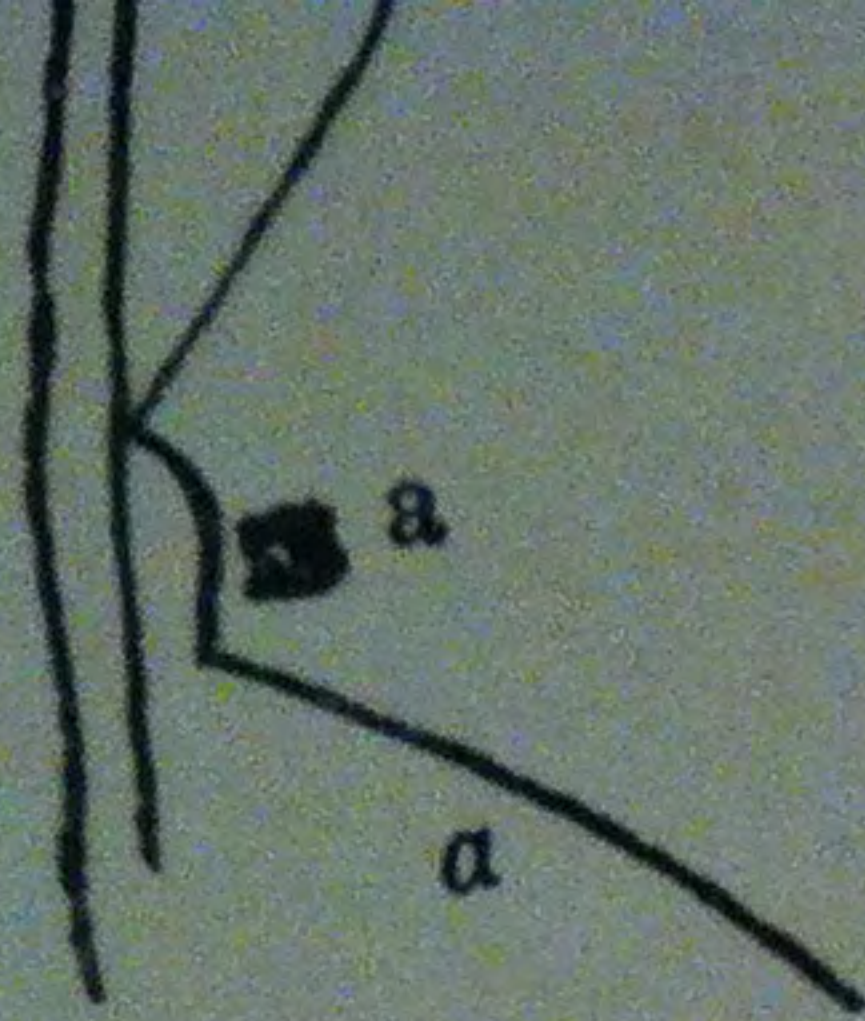


III. SKETCH VIEW OF THE MINGO

(Reduced from a Sketch by Professor)

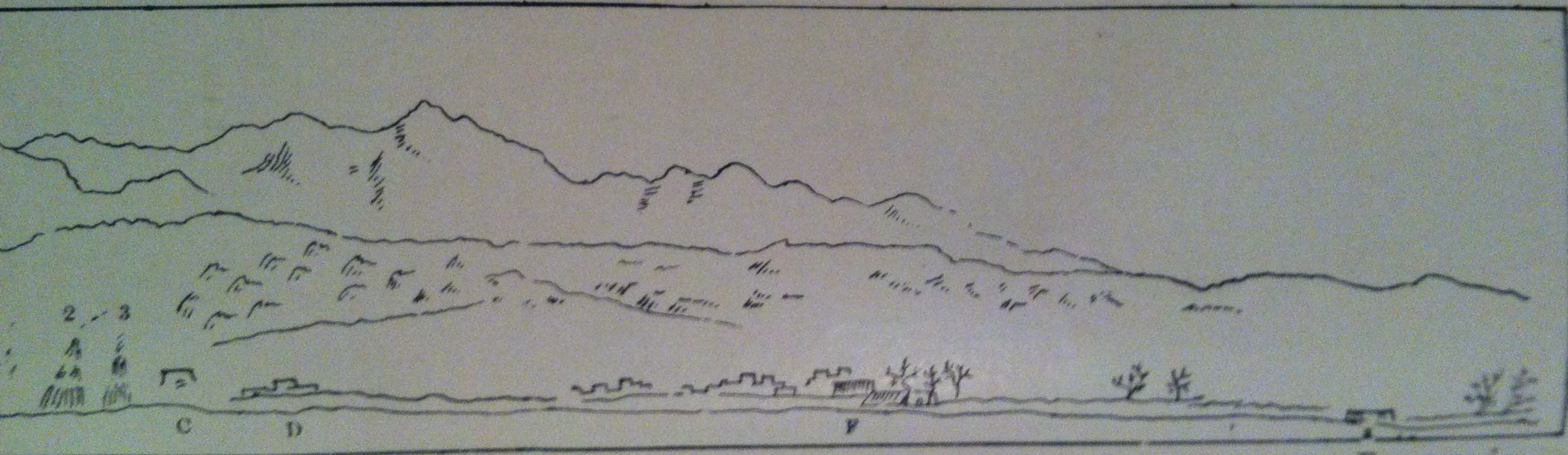
aa. — Dike.

1,2,3.—Three Gullies.



THE MINGOI FROM NNW. OF QUM TURA

(from a Sketch by Professor Grunwedel.)

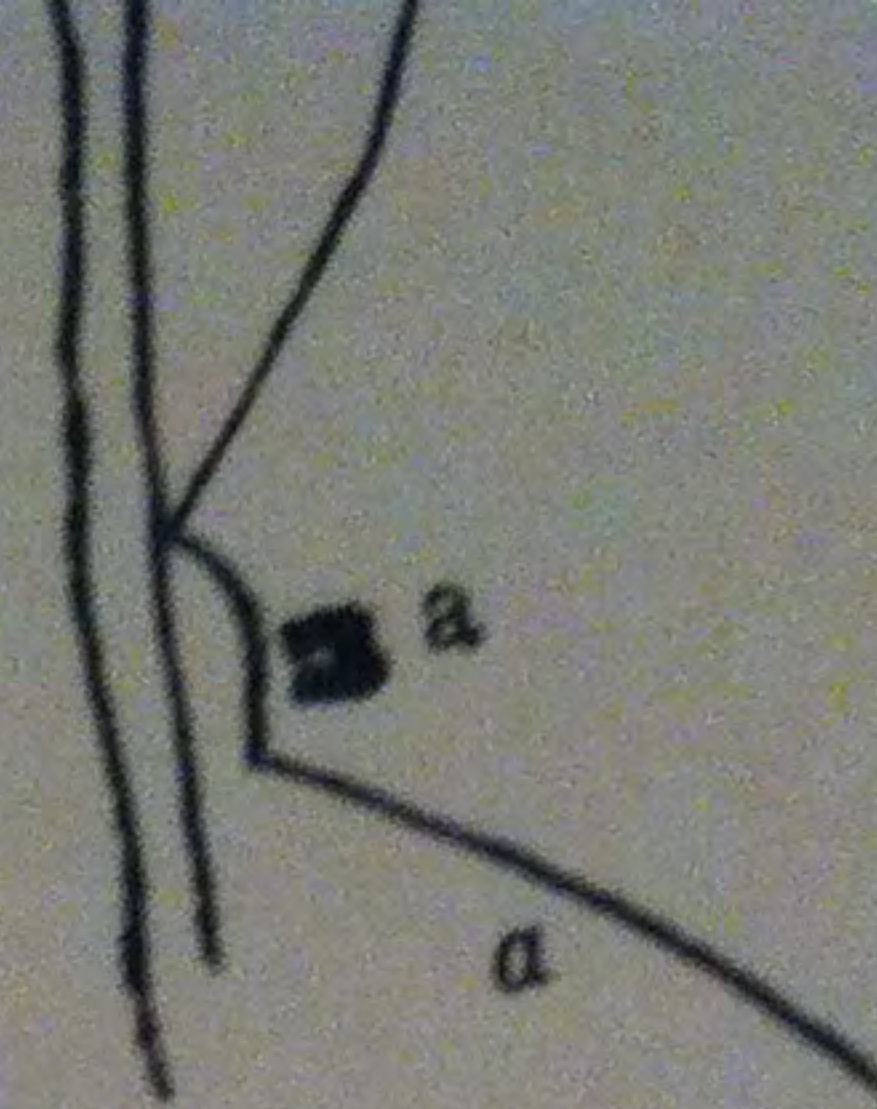


Face page 4.

aa. — Modern Houses.

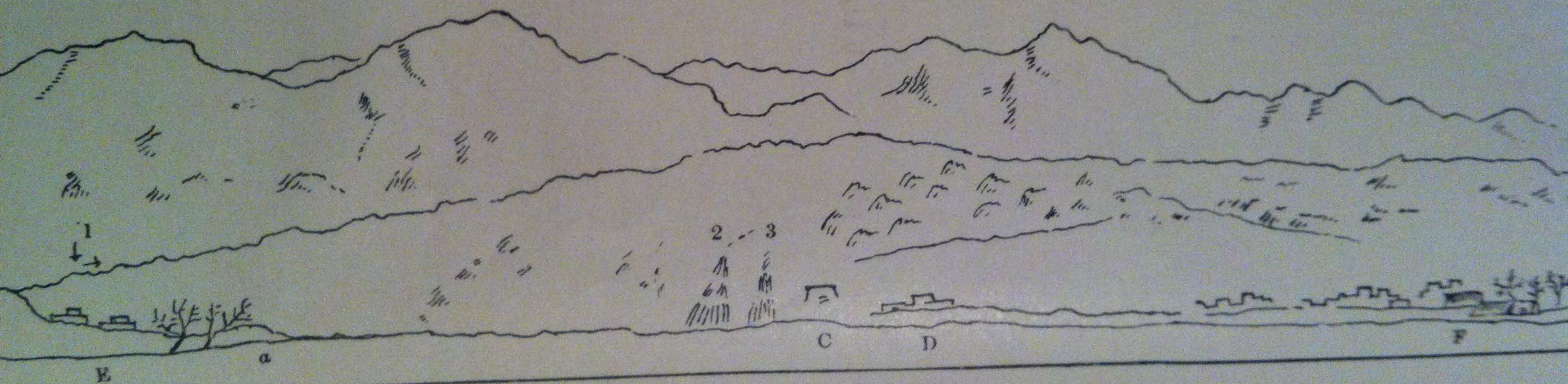
aa. — Dike.

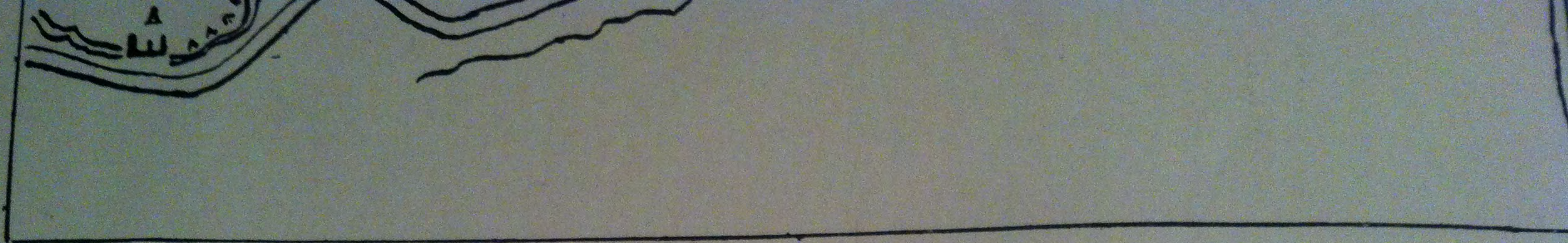
1,2,3. — Three Gullies.



III. SKETCH VIEW OF THE MINGOI FROM NNW. OF QUM TURA

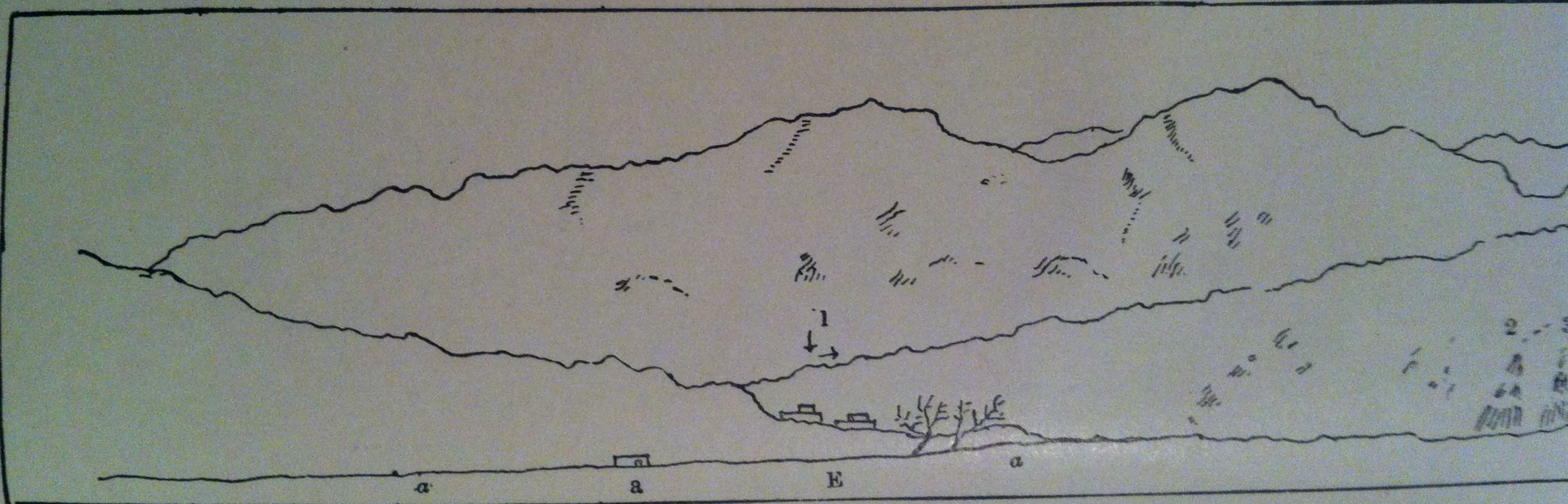
(Reduced from a Sketch by Professor Grunwedel.)

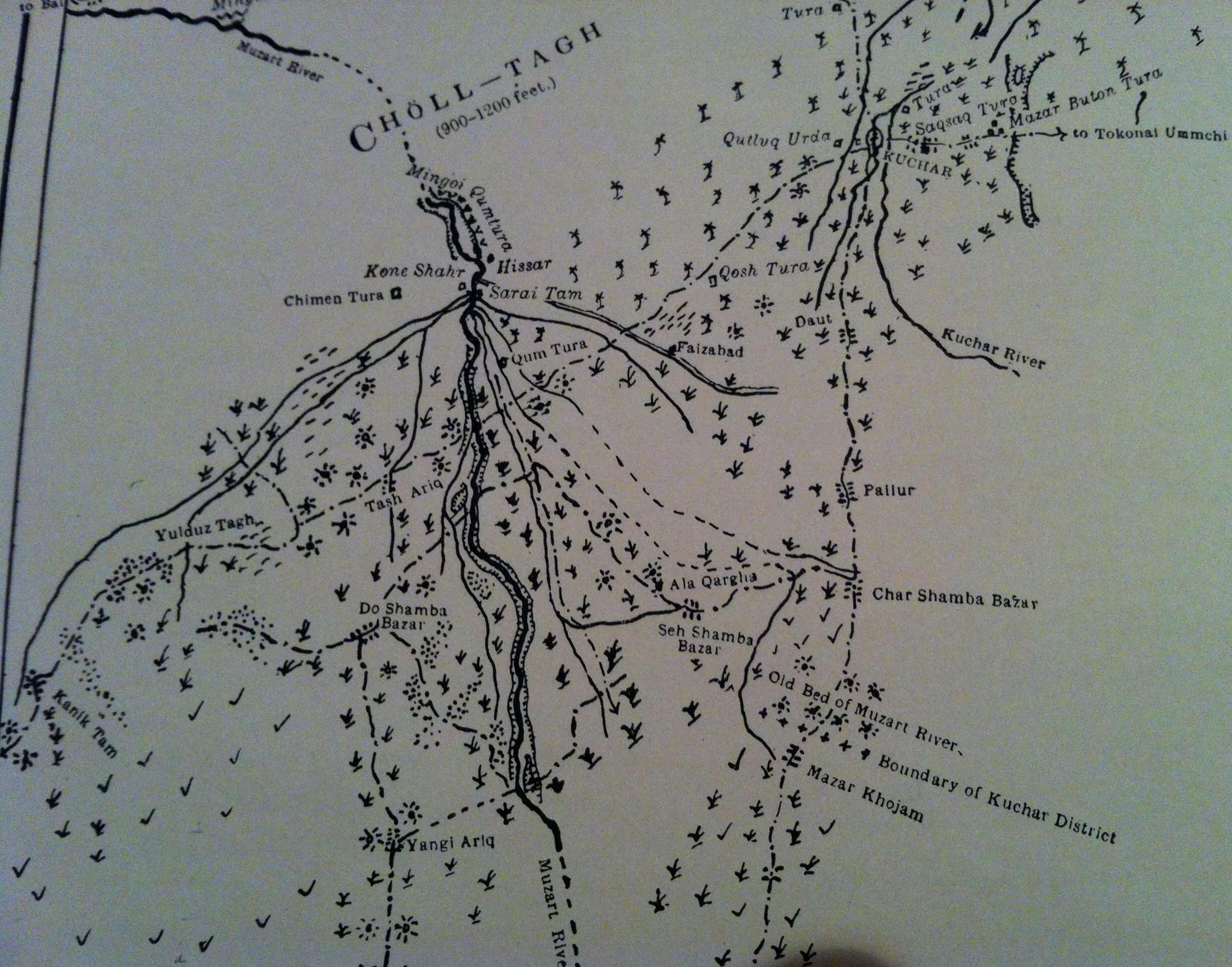


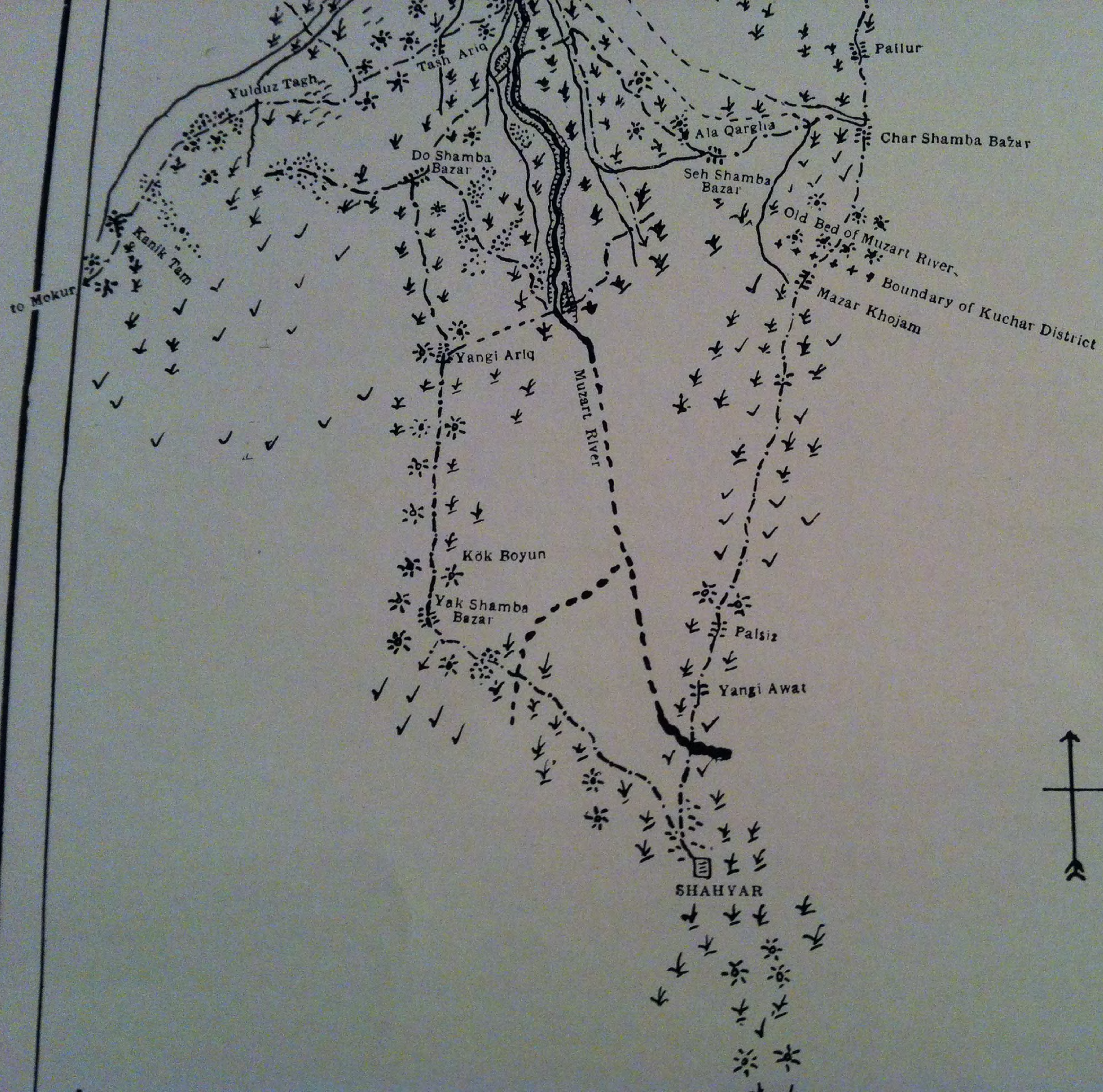


III. SKETCH VIEW OF THE MI

(Reduced from a Sketc







(XII) The MÂTULUNGA Pills.²²

(29—34.) Take asafœtida, the three acrids²³, Pâthâ (*Stephania hernandifolia*), habush, chebulic myrobalan, zedoary, Ajamôda (*Carum Roxburghianum*), Ajagandhâ (*Seseli indicum*)²⁴, tamarind, Indian sorrel, (30) pomegranate, Pushkara¹², coriander²⁵, cumin, plumbago-root, Vachâ (*Acorus Calamus*), the two carbonates (of potash and soda), the two salts (vidâ and sonchal)²⁶, and Chavya (*Piper Chaba*), and powder them together. (31) This powder may be taken, as an unfailing medicine²⁷, at the time of one's meals (lit., food and drink); it may be drunk either just before them or with them, or simply with warm water. (32) It is a remedy for severe pains in the side or in the heart or in the bladder, for tumours caused by excess of air or phlegm, for attacks of chronic diarrhoea or piles, for spleen, morbid pallor⁷, and loss of appetite, (33) for costiveness, strangury, and diseases of the womb and the rectum, for obstruction in the chest, cough, hiccup, asthma, and stricture of the throat. (34) Or the same powder may be repeatedly macerated²⁸ in the juice of citrons, and then made up into pills of one karsha⁹ or more.

²² This formula, but under the name of *Hingvâdi* powder, is found identically in Ch., VI, 5⁴⁸⁹ (vv. 75-80), Chd., XXX, 21³⁶⁵, and V., XXX⁴⁷⁸ (vv. 70-75). There are, however, the following differences: (1) all three have *madyêna* for *bhaktêna*; (2) Ch. and Chd. have *kârmukâh* 'efficacious' for *kârshikâh*; (3) V. has *pañcha-lavanam* 'five salts' for *lavanê dvê*. The reading *madyêna* agrees also with the corresponding phrase *gharm-âm̐tu-surâ-maṇḍa* 'warm water and clear wine' in Charaka's shorter version of the formula (VI, 5⁴⁸⁹, vv. 65, 66). The reading *kârmukâh tatô'dhikam* would mean that the pills, thus made, are 'efficacious even more than when the powder is used in the other way.' Both readings give good sense. The same formula, in another recension, in ślōka verses which arranges the ingredients in a different order, is given in Śâ., II, 6¹²¹. A third recension, again arranging the ingredients in a different order, is found in V., XXX⁴⁷⁹ (vv. 76-78) and BhP., II, 3²⁴; in the former, under the name of *Dvitiya-hingvâdi-chûrṇa* 'a second Hingvâdi powder.' This recension is in the Śârdûla Vikrîḍita metre, but it has an appendix in the Vasanta Tilakâ metre, which states that 'this is the original (*âdya*) Hingvâdi formula, as given in the Âsvina-Samhitâ.' It would follow from this remark that the recension given in our Manuscript is a later re-cast of the formula. A fourth recension in prose, and arranging the ingredients, again differently, is given in S., IV, 5⁴¹⁰ (§37) SY., XXX, 1²⁶⁵, and V., XXX⁴⁸⁴. The latter adds to it the remark *iti hingvâdi-vaṭika-prakârah saṃskritên-ôktah*, i.e., 'this is a revised version of the formula for Hingvâdi pills.' Suśruta, moreover, states that the pills are to be made *aksha-mâtrâ*, i.e., 'of as much as an *aksha*.' An *aksha* is the same as a karsha (see ante, note 9), and this, therefore, supports the reading *kârshika* of our Manuscript. A fifth recension in trishṭubh verses, and once more re-arranging the ingredients, occurs in AH., IV, 14³⁹⁴ (vv. 29-33). It uses the expression *kârmukâh* or 'more efficacious' for *kârmukâh tatô'dhikam*. A sixth recension, in Śârdûla Vikrîḍita verses, like the original, but re-arranging the ingredients, is found in the HS., III, 7¹⁹⁶, where the pills are directed to be made of the weight of a *kâchâksha*, i.e., a karsha. In all these recensions the formula consists of nineteen ingredients; but, besides, it occurs in several variants, of more or less than nineteen ingredients. Thus, there is in Ch., VI, 5⁴⁸⁹ (vv. 65, 66), S., VI, 43⁸⁰⁵, (vv. 26, 27), AH., IV, 14³⁹³ (vv. 9, 10), a

shorter variant, consisting of seventeen ingredients, and also called the Hingvâdi powder. In another recension this shorter variant is given in BhP., II, 2¹⁵². On the other hand, HS., III, 7¹⁹² gives a longer variant, which is called the *Vrihad-hingu*, or 'great Hingu' powder, and which contains twenty-eight ingredients.

²³ See Part I, note 55. See also S., I, 38¹⁴³ (in Dutt's Translation, p. 171, No. 29) and BhP., I, 1¹⁶³.

²⁴ In the very similar formula below, verses 80-84, we have *yavânî* and *krishnâgandha* apparently as equivalents of *ajmôdâ* and *ajagandhâ*. On the identity of the latter there is much uncertainty. See Phar. Ind. II, 116, 117, Mat. Med., p. 172, Med. Dict.; also Chakradatta's commentary (ed. p. 441) and Gangâdhar's commentary (p. 154) on Charaka, as well as Śivadâsa's commentary on Chakradatta. The latter identifies *ajamôdâ* and *ajagandhâ* with the wild and cultivated varieties respectively of *yamânî*.

²⁵ In the same formula, verses 80-84, we have *kustumburu* instead of *dhânya*, which settles the identity of the latter with coriander. See ante, note 8.

²⁶ All three expressions *lavanê dvê*, *lavana-trayam* and *pañcha-lavanam* are used in different recensions or variants of this formula. The first of these terms means the Vidâ and the Sonchal (*sauvarchala*) salts, see below, verse 80, also Ch., VI, 5 (v. 65); the second, those two with the addition of rock-salt (*saindhava*); the third these three, together with sea-salt (*sâmudra*) and sambar-salt (*rômaka*); see Mat. Med., page 84. Opinions, however, differ. Śivadâsa, in his commentary on our formula in Chakradatta, identifies the two salts with sonchal and rock-salt; so also Gangâdhar in his commentary on Charaka (v. 65); also the Med. Dict. On the other hand, in Part III, verses 31, 32 *vidâ* and rock-salt seem to be intended as the "two salts."

²⁷ *Anatyaga* appears to be a synonym of *niratyaya*, which occurs below, in v. 927, in the sense of unfailing in its effects.

²⁸ On the process of *bhâvanâ* or 'maceration,' see Mat. Med., p. 11, and Wise, p. 130. It consists in reducing drugs to powder, soaking them in some expressed juice or decoction during the night, and drying them during the day in the sun. It is completed in twenty-four hours, but generally repeated from three to seven times and sometimes with a variety of fluids. In the present case the commentary in the Chakradatta (see note 22) explains 'repeatedly' to mean 'seven times,' or on seven consecutive days. See note 177.

(XXIV) A powder for Medicating Liquor.⁵²

(67—70.) Take two karsha⁹ (i.e., one each) of the seeds of Kutaja (*Holarrhena antidysenterica*) and long pepper, one and a half pala of Madhurasâ (*Sansevieria zeylanica*), one pala⁹ of Pâthâ (*Stephania hernandifolia*), two pala of ginger, (68) one karsha each of sonchal-salt and the alkaline ashes of barley straw,

Third Leaf: Reverse.

and half a karsha of . . . , and powder *the whole* finely. (69) Of this one may drink a mârjâra-pada⁹ with clarified butter or rice-gruel, or, if one is accustomed to spirituous liquor, he may stiffen⁵³ it with a liquor and then drink it. (70) This is a remedy against indigestion, spleen, morbid secretion of urine, morbid pallor⁷, fistula in ano, and piles, if taken in the form of a medicated liquor.⁵⁴

(XXV) The ŚÂRDÛLA Powder,

in 4 ślôka.

(71—75a.) Take one part of asafoetida and two parts of Vachâ (*Acorus Calamus*), add three parts of vida-salt, four parts of ginger, (72) five parts of lovage, six parts of chebulic myrobalan, and seven parts of plumbago-root, and make the whole into fine powder. (73) When finely powdered, it may be taken with clear spirits of rice, or with some other intoxicating liquor, or *simply* with warm water. (74) This powder cures abdominal tumours, promotes the appetite, relieves piles, severe abdominal pains, cough asthma, and costiveness. (75) It is a most excellent powder, composed by Âtrêya and known by the name of Śârdûla (or 'plumbago-root').

(XXVI) The MÂTULUNGA Pills of the Âsvins.⁵⁶

(75b—77a.) Take one pala⁹ of sonchal-salt, twice as much of Indian sorrel, (76) four times as much of cumin, and eight times as much of black pepper. These make

⁵² This formula is called a *Chûrṇârishta*, which means 'an *arishta* made with a powder.' *Arishta* is medicated spirituous liquor, prepared from honey and treacle with the addition of medicinal drugs, the whole being steeped in water and allowed to ferment. There are, however, two kinds of medicated liquor, *arishta* and *âsava* (see below, v. 493). The liquor is called *arishta* when unboiled drugs are used in the preparation of it, and *âsava*, when a decoction of the drugs is used. See Śâ., II, 10, v. 2, BhV., II, 26³⁵ and 29³⁷; also Mat. Med., p. 13. See also Part I, note 39. For another formula of a *Chûrṇârishta* see below, vv. 104-107. —I cannot trace any formula identical with ours anywhere.

⁵³ *Âlôḍana* is explained in Med. Dict. to mean mixing (*miśraṇa*), or stiffening, fortifying (*uttêjana*). In the latter sense, *âlôḍya* is used here. It means, however, also to thicken by stirring (*âśôṣhaṇa*); so below in v. 304, and in AH., VI, 39, v. 170.

⁵⁴ Verse 70b is short by one instant; probably read, prakritically, *ârisâmsi* for *ârśâmsi*. —*Prayôgêna* is emphatic "by the regular, or habitual use"; so also in v. 275; and similarly *prayôgât* in v. 462.

⁵⁵ *Śârdûla* is a synonym of *Chitraka*, the largest ingredient; hence the name of the powder. Another synonym of *Chitraka* is *Agnimukha*, and under this name the same

formula is given in SY., VI, 27-32¹²⁴, V., V¹⁸⁷ (vv. 56-60) Chd., VI, 17¹⁵⁴ and Mat. Med., p. 181. In these works, however, eight parts of *Kushtha* (*Saussurea Lappa*) are added as an eighth ingredient; nor is the composition ascribed in them to Âtrêya. But that the formula is really the same is shown by the name *Agnimukha*, which proves that it originally ended with *Chitraka*, and that the addition of *Kushtha* is of a later date. Probably our Manuscript gives the composition as originally made by Âtrêya; and the name of the author was dropped in the later works which added *Kushtha*. In a third recension the formula is found in AH., IV, 14³¹⁵ (v. 36). Here, however, *Chitraka* is replaced by *Vâtyâ* (i.e., *Balâ* or *Sida cordifolia*); and accordingly the name *Śârdûla* is differently explained to mean either a *simha*, or 'lion' (because the powder is strong like a lion), or as the *Śârdûlavikrîḍita* metre (because the formula is composed in that measure). This, however, is obviously a mere shift.

⁵⁶ The name means 'Citron-pills composed by the Âsvins' (see below, note 126). This formula is given in the Chd., XXIII, 11³³¹, but in a shorter recension, running thus: "Take sonchal, tamarind, cumin, and black pepper in successively doubled quantities, powder them and make them up with citron juice into pills that cure abdominal pains due to disordered air." Tamarind is substituted here for Indian sorrel, and the reference to digestion is omitted.

into pills with the juice of citrons. (77a) They will keep the digestion in good condition, and cure abdominal pains due to *deranged* air.

(XXVII) The Sour MÂTULUNGA Pills.¹⁰

(78 and 79.) Take the juice of citrons and śukta⁵⁷, the three acrids²³, Indian sorrel, vida-salt, lovage, rock-salt⁵⁸, and sonchal-salt, and make *the whole* into pills. (79) These may be drunk to relieve piles and to cure severe pains in the heart and the side, attacks of costiveness, diarrhoea, loss of appetite, and abdominal tumours caused by *deranged* air.

(XXVIII) Other MÂTULUNGA Pills of the Aśvins,⁵⁹
in 5 ślōka.

(80—84.) Take plumbago-root, the three acrids²³, Pushkara¹², asafoetida, Indian sorrel, vida-salt and Aśvagandhâ (*Withania somnifera*), also coriander-seeds, Vachâ (*Acorus Calamus*), pomegranate, sonchal-salt, and fresh carbonate of potash, (81) Add to this an equal quantity by weight of fresh lovage, black cumin, saffron, Amarajâ (inferior *Acacia Catechu*), and cumin-seeds. After being well-dried in the glare of the sun, make the whole of the ingredients⁶⁰ into powder, and add to it an equal quantity of the juice of citrons in a diluted state. (82) Having been thus steeped in the juice, rub it into a paste, and make it up into pills of the weight of a badara.⁹ One of these the patient should take the first thing in the morning with some medicated liquor, or with honey, or liquor of honey, or śârkara⁶¹, or he may take it with spirits of rice, or

Fourth Leaf: Obverse.

with curds, or with whey. (83) Cough, asthma, long-standing morbid pallor⁷ severe spleen, abdominal pains, severe costiveness, hiccough, heart-diseases, apathy, salivation, acute diarrhoea, painful abdominal tumours, (84) cholera, tympanitis, weak digestion, dysentery, inflammation of the anus, and piles: all these diseases are relieved by these pills, if given as directed; they are also an excellent remedy for syncope⁶², if administered with hot water.

(XXIX) The GULMA Powder of the Aśvins.¹⁰

(85 and 86.) Take one dharana⁹ each of Pâthâ (*Stephania hernandifolia*), seeds of

⁵⁷ On *śukta* see Part I, note 27. For a different recipe see BhP., I, 2⁵⁷ and Śâ., II, 11¹⁷³ (vv. 7b, 8a), quoted in the larger Petersburg Dictionary, under *śukta*.

⁵⁸ *Lavan-ôttam-âkhya*, lit. 'that which is known as the best salt.' *Lavan-ôttama*, 'best salt,' is a name for rock-salt, commonly called *saindhava*; see the commentary to Chd., V, 29¹³² and AH., IV, 8³⁶⁸ (v. 161).

⁵⁹ I have not been able to trace this formula, as it stands here, elsewhere; but it is practically the same as the formula in verses 29-34. It appears in other works to be broken up into several distinct formulas, the chief of which is found under the name of *Tumburâdya-chûrṇa*, or 'the powder made of Tumburu and other drugs,' *Tumburu* being either the same as, or similar to, *Kustumburu*. See V., XXVI⁴⁴⁹ (vv. 81-84, also vv. 85 and 79, 80, 100, and v. 14), AH., IV, 21⁴²⁵ (vv. 35-37a), Śâ., II, 6¹¹⁹ (vv. 92-93), quoted in Mat. Med., p. 204. See also Ch., VI, 9⁵⁴¹ (v. 107 ff.).

⁶⁰ The construction in v. 81b. is rather awkward; but *samâhit-âmsa*, lit., having its parts put together, refers to the whole of the preceding ingredients.

⁶¹ *Śârkara* is a kind of liquor made from a watery infusion (*tôya*) of *Woodfordia floribunda* (*dhâtakî*) and sugar, see AH., I, 5 (comm. to v. 73), and Med. Dict., s. v. *Śârkara-madya*.

⁶² *Tamas* is unconsciousness, or loss of consciousness, and is always mentioned as the first and main symptom of *mûrchâ*, syncope or swoon, and of *sannyâsa* or catalepsy; also as occurring in severe cases of asthma: see below vv. 424, 941, and *tamô-śvâsa* in vv. 118, 479, also note 239. See MN., 121-123, S., VI, 46⁸²⁸ (v. 4). It is also called *tamaka* Ch., VI, 1⁴³¹ (v. 30), AH., IV, 3 (v. 70). But the construction of our verse and the mention of *tamâḥ* are awkward, and the reading would seem to be corrupt.

Kalinga (*Holarrhena antidysenterica*), Mustaka (*Cyperus rotundus*), Rôhinî (*Picrorrhiza Kurroa*), and Ativishâ (*Aconitum heterophyllum*), add turmeric equal to four dharana⁶³ and drink this powder with the urine of a cow. (86) It removes from the body the thirty-six kinds of skin-diseases, and destroys the seven grounds of rapid consumption⁶⁴; it also cures abdominal tumours, if taken for one month, removing them all, if the patient diets himself especially on clarified butter and meat.

(XXX) The MÂGADHA Powder.¹⁰

(87—95.) Take equal parts of long pepper, vida-salt, and the carbonates of potash and soda, also of ginger, black pepper, and rock-salt, (88) also of lovage, Dantî (*Baliospermum montanum*), turpeth-root, Vatsaka (*Holarrhena antidysenterica*), sonchal-salt, cumin-seeds, and the three myrobalans, (89) and make them all into fine powder. This will make a most excellent preparation of powder if well macerated in the urine of a cow. (90) Of this a dose of one vidâla-pada⁹ should be given with warm water to a patient, after he has taken some greasy food and thereby greased his bowels. (91) If, having well digested it, he becomes thirsty, he may be allowed to drink a lixivium of Ghṛitagandhâ (*Prosopis spicigera*)⁶⁵ with the juice of pomegranates; (92) then he will be rendered quite comfortable; and if, on this being digested, he should become desirous of food, (93) he may partake of a mild stimulative, consisting of red rice well-boiled together with the broth of game distinctly seasoned with vinegar and salt. (94) In the case of cholera, piles and other diseases, of difficult digestion or indigestion, also of morbid pallor⁷, (95) abdominal tumours due to *disordered* air, and chronic diarrhoea, if this prescription is made use of, the patient will obtain relief.

(XXXI) The HARIDRÂ Powder of the Aśvins.¹⁰

(96—101.) Take equal parts of the two Haridrâ⁶⁶, black pepper, lotus, Kushṭha (*Saussurea Lappa*), long pepper, root of the cotton plant, Mâmsî (*Nardostachys Jatamansi*), and carbonate of soda, (97) and rub these eight ingredients into a paste on

⁶³ *Chaturtha* in *chaturtha-dharana* probably stands for *chaturguna*, just as *ashtama* for *ashṭa-guṇa* in v. 76. The reading should have been *chaturtham dharanam*, but this would not have suited the metre. See note 9.

⁶⁴ This is a puzzling passage. The text is imperfectly preserved, but the reading of the number 36 (*shattriṃśat*) is practically certain. The only class of diseases of which I can find thirty-six enumerated, are the *kshudra-roga* or 'minor diseases.' Of these AH., VI, 31⁵³⁸ (v. 33b) enumerates thirty-six, all of which may be roughly described as 'skin-diseases.' Charaka does not treat of them as a class at all, while S., II, 13²⁸⁶ (§ 1) enumerates forty-four, and the Nid., p. 192, has forty-three, including some which are not skin-diseases. Another possible explanation, however, is suggested by Prof. Jolly, in vol. LIII, p. 380 of the Journal ASB. The usual number assigned to the skin-diseases (*kushṭha*) is 18, viz., 7 great (*mahâ*) and 11 minor (*kshudra*); see S., II, 5²⁶⁰ (cl. 2), Ch., II, 5²²⁰ (cl. 3), MN., XLIX, 1²⁵². The same number 18 is also assigned to certain diseases of the penis, called *Śūka*; see S., II, 14²⁴¹ (cl. 1), MN., XLVIII, 1²⁴⁷. For this reason, as the commentator Śrīkaṇṭhadatta explains, the *Śūka* and *kushṭha* diseases are treated by Mādhava in

two consecutive chapters MN., XLVIII and XLIX, and SY., L. and LI. It may be that for a similar reason, the two sets of diseases, amounting to 36, are classed together in our Manuscript. The *mahākshaya* I take to be the same as what is usually called *rāja-yakṣma* or 'phthisis' (Nid., p. 62). It is described as 'arising from the waste of the seven elements' (*dhātu-kshaya-janita*, Nid., p. 62). These seven 'elements' or *dhātu* (see ante, p. 16, note 34) are here apparently referred to by the term *sthāna* or 'ground.'

⁶⁵ This is conjectural. The reading of the text is perfectly clear; but I cannot find the word *avakshârî* in any dictionary or medical work; nor does it seem to be known to modern Kavirâjas. There may be an error in the text; and *yava-kshâra* 'carbonate of potash' or *avi-kshîra* 'ewe's milk' suggests itself. The Kavirâj whom I consulted suggested *ajā-kshîra* or 'goat's milk'. But the pronoun *tasyām*, in the sequel, seems to show that only one thing, and that of the feminine gender, is intended. Hence I prefer to take *ghṛita-gandhām-avakshârîm* to mean one thing only, and *avakshârî* to mean a 'lixivium,' or a solution of alkaline salts from the wood-ashes of *Prosopis spicigera*.

⁶⁶ See Part I, note 80.

a grindstone. Then make the paste into pills equal to a kôlâsthi⁹ and dry them in the shade. (98) One pill made of this powder may be given with warm water.

Fourth Leaf: Reverse.

the different kinds of diseases which may be cured by it: (99) indigestion, retention of discharges, strangury, angina, costiveness, abdominal tumours due to *deranged* air, and the effects of spider's poison. (100) It also cures the effects of impaired poison⁶⁷ and of a scorpion's sting, and relieves flatulence, epilepsy, and sterility, (101) seizure by evil spirits, madness, and complex labour. In the case of injury by any poison, whether from teeth or roots⁶⁷, it may be used as a draught or as an ointment.

Now, hear

(XXXII) The GAUDIKA Pills.¹⁰

(102 and 103.) Take zedoary, Vachâ (*Acorus Calamus*), Tâmalakî (*Phyllanthus urinaria*), long pepper, ginger, and treacle, fry the whole with clarified butter, and make it into pills. (103) With this may be cured spasms in the chest, catarrh, pains in the sides, heart and abdomen, and dry cough, even when they are of an aggravated character.

(XXXIII) Another Powder for Medicating Liquor.⁶⁸

(104—107.) Take two hundred (pala⁹ of) black pepper, and one hundred (pala) of lovage and long pepper, also one pala each of sugar and good dry ginger, and one karsha⁶ each of (105) tamarind, pomegranate and clean jujube. To these add one karsha of cinnamon, half a karsha of cumin, (106) one karsha of Indian sorrel, half a karsha of sifted coriander, and one karsha of sonchal-salt. These together make a most excellent powder for medicating liquor. (107) This is a radical cure for piles; it also completely stops chronic diarrhoea, and relieves heart-disease, morbid pallor⁷, cough, and asthma.

⁶⁷ I.e., 'whether animal or non-animal.' On poisons see Ch., VI, 25⁷²², V., LXX⁹²² (vv. 8, 47, 56), S., V, 2⁶⁰⁸ (vv. 1, 2, 29-31, 38), V, 3⁶¹³ (vv. 1 ff.), AH., VI, 35⁵¹⁷ (vv. 5b, 6a, 37, 48, 49). They are divided into *akritrima* or 'natural,' and *kritrima* or 'artificial' (v. 239). The latter is also termed *gara* (v. 250). Any thing when it has become spoiled by age or other causes, and hence has turned poisonous, is called *dûshî-visha*. The Bhâva Prakâsa alone differs by making both *gara* and *dûshî visha* sub-divisions of *kritrima* poison. The *akritrima* poisons are subdivided into *jaṅgama* or 'animal' and *sthāvara* or *sthira* or 'non-animal' (vegetable and mineral). The *jaṅgama* poisons are also called *damshtrâ-visha* or *damshtr-ôttiā* or *damshtri-ja*, i.e., 'produced in animals with poison-fangs'; and the *sthāvira* are also called *mûla-visha* or *mûla-ja* or *maula*, i.e., 'produced in the roots.' They have these names, because in the enumeration of their sources, the poison-fangs of animals and the roots of plants are the first-mentioned in their respective classes (see Gangâdhar's comment on Ch., VI, 23, vv. 8, 9⁴⁷⁹). It may be noted that the latter representative names are peculiar to Charaka and to

formulas quoted from that work (e.g., the Nârâyana powder in Ch., VI, 68⁶⁴⁹ (vv. 121-129), quoted in the AH., IV, 15, v. 14-21⁴⁰⁰). *Gara* is explained in AH., VI, 35⁵⁴⁹ (vv. 48, 49), and BhP., II, 4¹⁶² to be an unwholesome mixture made of the dirty excretions (*mala*) of men and animals, and administered by women to their husbands, and by courtiers to kings, in their food to gain their favour or avert disgrace; see also note 78.

⁶⁸ For another formula for a Churnârishta see vv. 67-70. This formula is only a slight variant of the formula, given previously under the name of Shâdava powder (vv. 14-17). The ingredients are the same; for *Mâgadhi* is here a synonym of *Yavânî*; the proportions only differ in some of the ingredients, the most important difference being the reduction of sugar to one fourth, and the increase of dry ginger to four times its quantity in the Shâdava; for 1 pala = 4 karsha. With regard to the serial order of the drugs this formula most resembles the recension of it in V., XIV²⁸⁵ (vv. 26-28). On this and the other recensions of this formula, see ante, note 8.

(III) A *third* BALĀ Oil,¹⁴⁶

in 7 ślōka.

(280—286.) Let a learned *physician* take one hundred well-measured (pala⁹ of) roots of Balā (*Sida cordifolia*), and boil them in one drōna⁹ of water, till *the whole* is reduced to one-fourth of the original quantity. (281) Now add ten more pala of Balā (*Sida cordifolia*), made up with milk into a paste, also two ādhaka⁹ of oil made from decorticated¹⁴⁶ sesamum, (282) and boil *the whole* with four times the *latter* quantity (*i.e.*, eight ādhaka) of milk over a gentle fire. In this manner the oil should be boiled ten times. (283) This Balā oil is an approved remedy for numerous diseases. It is recommended *to be used* in the form of a draught or a liniment or an *ingredient of one's* food or an errhine or an enema¹⁴⁷, (284) in all diseases connected with the seasons, and those accompanied with hemorrhages, also in diseases of the womb of women¹⁴⁷ or of the semen of men. (285) It cures dryness of the palate, morbid thirst, morbid heat, severe pains in the side, unhealthy menses, drying up and wasting of the body, madness, and erysipelas.

Tenth Leaf: Obverse.

(286) It lengthens life, promotes strength, and relieves cough and asthma; in fact, this oil may be administered as a general remedy for all diseases.

(IV) The AMṚITA Oil,¹⁴⁸

in 25 ślōka and 1 pāda.

(287—312a.) The two truth-speaking Aśvins, the divine physicians, honoured by the Dévas, have declared the following excellent oil which promotes plumpness, (288) relieves all diseases, is fit for a king, and is as good as ambrosia. It is known by the name of Amṛita (or 'ambrosia') and is an oil able to make men strong. (289) At the time of Pushya¹⁴⁹, after having said prayers¹⁵⁰, performed purificatory rites, and asked the Brāhman's blessing in a few words, take out liquorice-roots grown in a favourable place. (290) Of the fresh juice of these roots let a clever *physician* take four pātra⁹, and add four pala⁹ each of *the following drugs*: Prapaundarīka¹⁵¹, Amṛita (*Tinospora cordifolia*), knots of the root-stalk of the lotus, Śatāvarī (*Asparagus racemosus*), (291) Śringātaka (*Trapa bispinosa*), emblic myrobalan, Udumbara (*Ficus glomerata*), Kaśēruka (*Scirpus Kysoor*), the bark of each of the (five) trees with a milky sap¹⁵², (292) roots of Kuśa (*Poa cynosuroides*), Kāśa (*Saccharum spontaneum*), and Ikshu (*Saccharum officinarum*), also of Śara (*Saccharum Sara*) and Vîraṇa (*Andropogon*

¹⁴⁶ On the object and method of decortication, or cleansing of sesamum, see Phar. Ind., vol. III, p. 29, in the Jury Reports of the Madras Exhibition.

¹⁴⁷ The *vyapad* or 'afflictions' of the *yōni* or 'womb' are said to be twenty. See Nid., p. 241, V., LXVIII⁸⁵⁸ (v. 91); Wise, p. 380.

¹⁴⁸ I have not been able to trace this formula elsewhere. It is a phenomenally long one, consisting of no less than eighty-three ingredients, actually named (*i.e.*, forty in the first and forty-three in the second part), besides others not named, but permitted. A few, indeed, are repeated in the second part.

¹⁴⁹ *Pushya* is one of the twenty-seven lunar asterisms, the sixth according to the older reckoning. It is one of the auspicious times for undertaking medical treatment. See, *e.g.*, AH., VI, 39⁵⁶⁶ (v. 54). Ibidem, II, 1¹⁸³ (vv. 38b-39a) a ceremony to insure the conception of a male child (*pūṃsavana*) is directed to be performed in Pushya time. See also ibidem, VI, 35 (comm. to v. 27).

¹⁵⁰ For an example of such a prayer, see Dr. Wise, p. 134.

¹⁵¹ See Part I, note 54.

¹⁵² See Part I, note 69.

Tenth Leaf: Reverse.

(306) It serves the purpose of relieving diseases and imparting strength to the organs of sense. For those who suffer from morbid heat and thirst it makes an excellent and beneficial liniment. (307) It promotes the growth of hair in the old and that of the body in the young; it produces loveliness and blessedness¹⁵⁸ in women; and also ensures numerous offspring, (308) for by the use of this ambrosial oil, women are predisposed to conception. It cures the eighty nervous diseases¹⁴¹, also those due to *derangement of* the blood or the bile (309) or the phlegm or all the humours concurrently¹⁵⁹. By its use as an errhine or a liniment the eyes become as sharp as those of an eagle. (310) It keeps off calamities, averts ill-fortune, and promotes prosperity. By the use of this oil the Maharshi Chyavana¹¹⁹ regained (311) his youth, and was delivered from decrepitude and disease; and the blessed Maharshi Mārkaṇḍēya¹⁶⁰, who was desirous of a long life, (312a) obtained his desire by the regular use of this oil.

(V) A MŪLAKA Oil,¹⁶¹

in 6 ślōka and 1 pāda.

(312b—318a.) Take tender radishes without their leaves, and boil one ādhaka⁹ of their juice (313) over a gentle fire, together with one ādhaka each of curds, vinegar of rice¹⁵⁶, milk and (sweet) oil. (314) Also there should be boiled with it¹⁶² pastes of * Rāsnā (*Vanda Roxburghii*), Balā (*Sida cordifolia*), Gōkshuraka (*Tribulus terrestris*), rock-salt, Śigruka (*Moringa pterygosperma*), Vachā (*Acorus Calamus*), plumbago-root, ginger, long pepper, Gajapipdalī (*Scindapsus officinalis*), (315) Bhallātaka (*Semecarpus Anacardium*), and Prativishā (*Aconitum heterophyllum*). This Mūlaka (or 'radish') oil is much recommended as beneficial to men (316) in paraplegia,¹⁶³ lumbago, sciatica, and apoplectic convulsions. Barren women also are by it predisposed to conception. It also averts calamities, (317) and removes obstruction and relaxation in the case of scrotal enlargement¹⁴³ or displacement of the bladder and of the joints respectively.¹⁶⁴ All these diseases are driven off by drinking the radish-oil, (318a) just as a furious elephant, by a skilfully applied goad.

¹⁵⁸ *Saubhāgya* is blessedness arising from being a *subhagā*, a woman blessed with children, and therefore beloved by her husband; see note 3 on p. 77.

¹⁵⁹ This passage would seem to imply the doctrine of a tetrad of humours; for nervous diseases are those due to vitiated air. On this subject, see Part I, note 76.

¹⁶⁰ He is the reputed author of the Mārkaṇḍēya Purāṇa, and was remarkable for his great age, whence he was called *Dīrgh-āyus* or 'the long-lived.'

¹⁶¹ This formula is found in a different recension, re-arranging the ingredients, in V., XXII ³⁹⁶ (vv. 525-528). In a third, but more enlarged recension, it occurs in Ch., VI, 28 ⁷⁸⁴ (vv. 162-164) and Chd., XXII, 69 ²⁸². In this recension there are eight drugs in addition to the twelve given in our recension and in that of Vangasēna.

¹⁶² The construction in verses 314 and 315 is rather awkward. The causal *pāchayāt* has a double accusative, the

drugs *rāsnā*, etc., as well as the before-mentioned decoction; also it has the instr. *garbhēna anēna*, which refers to the drugs *rāsnā*, etc. More literally the passage may be translated thus: '(then taking) *Rāsnā*, *Balā*, etc., with their paste let it be boiled.'

¹⁶³ On paraplegia see Nid., p. 107. It appears to be the same as the disease called *pangu* in Wise, p. 254, No. 19.

¹⁶⁴ *Stambhana* or 'obstruction' refers to scrotal enlargement and displacement of the bladder, and *sramsana* or 'relaxation,' to the joints; compare verse 335—*Kuṇḍala* is one of the thirteen forms of *mūtra-ghāta* or 'retention of urine,' in which *stambhana* or 'painful obstruction in the passage of urine' is one of the symptoms. See its description in Ch., VIII, 9 ⁹⁰⁸ (v. 49), and Wise, p. 366. AH., III, 9 ²⁷⁶ (vv. 20-23a) and Nid., p. 125, enumerate only twelve forms, of one of which *kuṇḍala* is a sub-variety.

in a *plain* fashion without fat, and should consist of boiled split-pulse and rice.¹⁷⁰ It is a medicine recommended to barren women who desire to give birth to a son.

(VIII) The SAHACHARA Oil.¹⁷¹

(329—336.) Take one hundred (pala⁹) of Sahachara (*Barleria cristata*) with their roots, leaves and twigs, mince them finely, and boil them in four drôṇa⁹ of water, (330) till *the whole* is reduced to one drôṇa. Then strain *the decoction*, and boil it *again* slowly with a paste made of ten pala of the roots of Sahachara (*Barleria cristata*) in one âdhaka⁹ of (sweet) oil. (331) Strain it again, and while it is still fairly warm, throw in eighteen pala of sugar. After stirring this well, put it by for use. (332) It is highly recommended to be used in the form of an enema¹⁴² or a draught or a liniment or an errhine. Paralysis of a single limb¹²⁵, or of a whole side of the body. cramps of the jaw or of the head, (333) facial paralysis, tic convulsive, insanity, palsy of the whole body, fever, sciatica, abdominal tumours due to *deranged* air, demoniacal possession, (334) epilepsy, emprosthotonos, paraplegia, glossitis¹⁷², goitre, displacement of the bladder¹⁶⁴, scrotal enlargements, contracture of the hands or the knees, (335) *and* loosening or trembling or drying up of the knuckles and joints: *all these evils* are relieved by this oil, which scatters them, just as the storm-wind scatters the clouds. (336) In case no sugar be at hand, the oil may be boiled with milk. In order to subserve the destruction of a host of diseases, it has been ordained by the Self-existing God.

(IX) The MADHUYASHṬIKA Oil.¹⁷³

(337—343.) Boil one prastha⁹ of oil made from decorticated¹⁴⁶ sesamum seeds, with four times as much of milk and one pala⁹ of liquorice. (338) Give it a gentle boiling, and, when ready, repeat the process of boiling again and again, until one hundred (pala⁹) of liquorice have been boiled in. (339) Having thus given to it a hundred boilings, put it by for use. It is recommended as a draught and as a liniment, also for enemas and errhines. (340) Taken in one's food it is as good as ambrosia for curing people suffering from phthisis. Taken as a draught, it relieves heart-diseases, morbid dryness of the palate, abdominal tumours due to bile, hysterical convulsions, (341) morbid thirst, insanity, erysipelas, asthma, cough, unhealthy menses, excess of *vitiating* air, pressure of it in all directions, pressure of it upwards, (342) jaundice, fever, and morbid pallor⁷, suppuration due to *deranged* phlegm, internal heat, boils, psoriasis, (343) and

¹⁷⁰ *Sûpôdana* is the dish known in modern India as *dāl-bhāt*.

¹⁷¹ According to Dr. Cordier, this formula is found in a nearly identical recension in the Hârîta Samhitâ. In another recension which combines the two options (sugar or milk) in the same formula, it occurs in Ch., VI, 28 (vv. 140, 141). A third recension is given in AS., IV, 23 ¹³⁰ (ll. 8-13) and in AH., IV, 21 ⁴²⁷ (vv. 69-72a). Here the option of our formula is broken up into two separate optional formulas. The oil may be prepared either with milk, but without any sugar; or it may be prepared with sugar (without milk), but in that case, instead of the paste of Sahachara, pastes made of ten other specified drugs should be used. This recension, moreover, is expressly ascribed to the physician Bhêḍa, in whose Samhitâ,

according to Dr. Cordier (Rec. Dec., p. 7) it occurs in chap. 24, vv. 39, 40. There is still a fourth recension in the V., XXII ³⁷¹ (v. 258-259), which is a compromise between those of Ch. and the AH. It combines the options of sugar and milk, but for the paste of Sahachara it substitutes pastes made of nineteen other specified drugs, nearly all of which, however, differ from those in AS. and AH.

¹⁷² On *alâsaka* or *alâsa*, glossitis, see Nid., p. 208; also Med. Dict. It is to be distinguished from *alâsaka*, tympanitis.

¹⁷³ This formula is found, though in a much more concise recension, in V., IX ²⁵⁰ (vv. 132-133), under the name of *Śatapâka-taila* or 'Oil of one hundred boilings.' I have not been able to trace it elsewhere.

Eleventh Leaf: Reverse.

other diseases, of their own kinds, there are, all these are relieved by this oil, just as the dust is laid by the advent of the rains. whatever

(X) An AŚVAGANDHĀ Oil.¹⁷⁴

(344—350a.) Measure out one hundred pala⁹ of roots of Hayagandhā (*Withania somnifera*) and boil them in a vessel with four (ādhaka) of water, till the whole is reduced to one-fourth of the original quantity of the water. Having strained the decoction, (345) stiffen it with pastes made of one karsha⁹ each of powder of the following drugs: liquorice, ginger, deodar, Śatāvarī (*Asparagus racemosus*), madder, Nalada (*Nardostachys jatamansi*), Kushṭha (*Saussurea Lappa*), the two Karanja¹⁷⁵, Varshabhū (*Boerhaavia diffusa*), (346) leaf-stalk of the lotus, Śatapushpā (*Peucedanum graveolens*), Surasa, (*Ocimum sanctum*), *Rāsnā (*Vanda Roxburghii*), Payasyā (*Gynandropsis pentaphylla*), zedoary, roots of Pushkara¹², Sthirā (*Desmodium gangeticum*), *Dravantī (*Ipomoea reniformis*), Payasyā (*Oxystelma esculentum*).¹⁷⁶ (347) Now boil the whole over a gentle fire in one ādhaka⁹ of oil, and four times its quantity of milk. (348) When it has finished boiling gently, put by the oil in a clean vessel. It may be administered in the form of a draught or a liniment or an enema, or used in the process of maceration.¹⁷⁷ (349) People may use it who suffer from apathy, dumbness, lameness, stammering, paraplegia, or facial paralysis, from loss of memory, from festering splinters of bone in the side, from dislocation or comminuted fracture of the bones and joints,¹⁷⁸ from stumbling, (350a) from debility of or injury to the semen, from sterility caused by jealousy, and from lock-jaw.

(XI) Another AŚVAGANDHĀ Oil,¹⁷⁴

in 15 ślōka and 1 pāda.

(351—366a.) Cut in pieces half a tulā⁹ of roots of Aśvagandhā (*Withania somnifera*) and boil it in a drōṇa⁹ of water, till the whole is reduced to one-eighth of its original

¹⁷⁴ This and the following are merely varieties of the same formula. They contain pastes of twenty and twenty-four drugs respectively, of which they have sixteen in common. Neither of them, however, I have been able to trace elsewhere. The nearest is an Aśvagandhā formula in V., XXII³⁹⁶ (vv. 531-536), in which the general outline is the same, but nearly all the drugs differ. The quantity of water, directed in it to be taken, is one drōṇa, which is equal to four ādhaka.

¹⁷⁵ *Dvā Karanjā*, or 'the two Karanjā,' are the *Karanjā* (*Pongamia glabra*) and the *Pāti-karanjā* (*Caesalpinia Bonduella*, or 'The Bonduc nut'), the properties of which are said to resemble one another. See *Mat. Med.*, p. 153.

¹⁷⁶ *Payasyā* occurs twice in this formula. It is a name of several plants; but such a repetition of the same term is most improbable. There is probably an error. The text of this formula is much out of order. *Payasyā* as well as its synonyms *dugdhiḥ*, *kshirī*, etc., are applied to a great variety of milky plants, and are descriptive rather than proper names. See *Phar. Ind.*, vol. II, p. 457; also *Dutt's Translation of the Sūśruta*, pp. 75, 180, 195.

¹⁷⁷ *Bhāvana* or 'maceration' here probably refers to the preparation of eatables, or preserves in oil, and corresponds to the term *bhōjana* in other formulas. See *ante*, note 28.

¹⁷⁸ The term *bhagna* or *bhaṅga* denotes generally any kind of lesion of a bone (*asthi* or *kāṇḍa*) or a joint

(*sandhi*), whether caused by an accident (*āgantū*), or by a rheumatic, gouty, or tuberculous condition (*vāta*, or *vāta-vyādhī*). See S., III, 15²⁹², where *bhagna* denotes not only a fracture, but also a dislocation (*sandhi-mukta*, *chyuta*), or a curvature (*vakra*); see *Nid.*, p. 92, where *asthi-bhaṅga*, lesion of bones, is mentioned as one of the symptoms of *vāta-vyādhī*. *Bhagna* is said to be sometimes due to *ākshēpaṇa*, or a wrench, causing distortion or deformation of limbs or joints. Hence S., III, 1²⁴⁷ (v. 50ff.) enumerates among the *vātavyādhī* four kinds of *ākshēpaka*, distortion or convulsion. Hence *kshipta* (v. 359) means distorted or convulsed, and *vāta-bhagna*, distorted or deformed by rheumatism, gout, or tuberculosis. Both terms occur in this sense in the *Atharva Veda*, VI, 109, *kshiptasya* or *vātī-kṛitasya bhēshaja*, remedy for one who suffers from convulsions or from rheumatism, etc., see note 333. The terms *paksha-kshat-āvabhagna* (v. 349) and *paksha-hin-āvabhagna* (v. 358) are probably synonyms, and denote that kind of *bhagna*, lesion, which S., III, 15²⁹³ calls *asthi-chhallita*, and which he explains to mean *pārśvayōr-asthi-him-ōdgata*, i.e., a splinter, or decayed piece, of bone which has appeared in the side. So also, the terms *chyuta-nish-pishṭa* (v. 349) and *chyuta-bhagna* (v. 358) would seem to be synonymous, denoting loosened or displaced, and comminuted or fractured bones or joints.

quantity. (352) Then mix into it one *âdhaka*⁹ of oil, and add four times as much of milk. Now boil *the whole again* in a kettle, throwing in *at the same time* pastes of the following *drugs*: (353) cardamoms, dill-seeds, Kushtha (*Saussurea Lappa*), Vyâghranakha (*Unguis odoratus*), cinnamon-bark, liquorice, ginger, deodar, Balâ (*Sida cordifolia*), Sthirâ (*Desmodium gangeticum*), (354) *Râsnâ (*Vanda Roxburghii*), roots of Pushkara¹², Bhûtikya (*Andropogon Schœnanthus*), Punarnavâ (*Boerhaavia diffusa*), madder, Nalada (*Nardostachys Jatamansi*), cinnamon-leaves, *Dravantî (*Ipomoea reniformis*), Surasa (*Ocimum sanctum*), Vachâ (*Acorus Calamus*), (355) Śvadamshtrâ (*Tribulus terrestris*), leaf-stalk of the lotus, Payasyâ (*Gynandropsis pentaphylla*), Bahuputrikâ (*Asparagus racemosus*). Having thrown in pastes made of one *aksha*⁹ each of those drugs, boil *the whole*, (356) and when it is ready, take it undiminished¹⁷⁹ down at once *from the fire*. This oil may be used in the form of a potion, or of an enema, or of a liniment, or of an errhine, or in the preparation of one's food. (357) Now, listen to the enumeration of the diseases in which it may be administered *in any of those forms*. It may be given to people who suffer from lameness or dumbness, from paraplegia or facial paralysis, (358) from festering splinters of bone in the side, from dislocation or fracture of the bones or joints, or to people whose elements¹⁸⁰ are impaired or deformed through *generally deranged* air, (359) or who suffer from lock-jaw, gout in the hands¹⁸¹, or morbid secretion of urine, or convulsions due to *deranged* air, or who suffer from deformations through *deranged* air¹⁷⁸, or from debility or impaired senses, (360) also to men whose semen is exhausted, or to people who are suffering from sterility caused by jealousy,

Twelfth Leaf: Obverse.

or whose minds are oppressed by demoniac influences or by a combination of two disordered humours,¹⁸² (361) or who suffer from remittent fever, abdominal tumours due to *deranged* blood, deep-seated abscesses, sciatica, spleen, abdominal tumours due to *deranged* air, and (362) Also women *should take it* who suffer from any disease of the womb¹⁴⁷, and, and who do not conceive when the time of puberty has arrived, (363) also such as have a protracted parturition, as well as such as are barren, or suffer from some defect in the womb. A barren woman who (preparatory to cohabitation) has bathed herself after menstruation is sure to conceive; there is no doubt about this. (364) In fact, it should be given to a woman at once when she has taken her bath after a period of menstruation. It is an excellent preparation to produce strength and colour, and to create intelligence and (365) memory. It is altogether a very effective strengthening medicine which cures all diseases and causes children to grow. (366a) It is an ambrosia-like medicine which may be administered in all four forms.¹⁸³

¹⁷⁹ *Avibhakta*, as a medical term, is unknown. Kavirâj B. B. Gupta suggested the meaning 'undiminished.' Apparently it indicates that the mixture is not to be boiled down, or reduced to one-fourth, or one-eighth, but is simply to be brought to the point of boiling, and then removed from the fire. It is, therefore, the opposite of *avaśishṭa* or *avaśēshita*.

¹⁸⁰ See Part I, note 34; also *ante*, note 141.

¹⁸¹ *Khaḍa* is not noted in any dictionary. The translation 'gout in the hand' has been suggested by *khaṭaka*, which in Med. Dict. is stated to mean *kubjita-pāni*, deformed hand. Compare also *khallī*, explained in note 194.

¹⁸² *Samśṛishṭa*, if correctly restored, is a synonym of *sam-sarga*; see Arunadatta's commentary to A.H., III, 11 (v. 32).

¹⁸³ By the "four forms" are probably meant the following: 1, *pāna* or 'potion,' 2, *abhyāṅga* or 'liniment,' 3, *vasti* or 'enema,' and 4, *nasya* or 'errhine.' These four forms are enumerated above in verse 356, also verses 305, 332, 339, *et passim*. Both Charaka and Suśruta give this four-fold division; thus, S., IV, 31⁵³⁹ (§ 13) divides medicated *snēha* (oils, etc.) into three classes: *khara* or 'thick,' *madhyama* or 'middling,' and *mṛidu* or 'soft,' 'thin,' and says that a *pāna* should be *mṛidu*, while an *abhyāṅga* and a

(XII) The ŚVADAMSHTRÂ Oil,¹⁸⁴
in 12 śloka.

(366b—379a.) I will now explain the Śvadamshtṛā oil¹⁸⁵ (367), by the proper application of which men's nervous diseases¹⁴¹ may be overcome. Listen to me! Nabhas and Nabhasya¹⁸⁶ are the two best months of the seasons (368), in which numerous medicinal plants spring up on the face of the earth, made to grow by the showers which fall from the seasonable rain-clouds (369) on the ground covered with the young crops. Then take up *that plant* at a time when it has yet no flowers nor fruit, as it grows in the field in a healthy and good condition; (370) and having collected it at an auspicious moment, on a favourable day, put it in a clean state in a clean wooden mortar, and pound it. (371) Then strain as much as one ādhaka⁹ of its juice through a piece of cloth, and add to it one prastha⁹ of oil and four times as much of milk, (372) also eight pala⁹ of molasses, and six pala of ginger. After boiling *the whole*, let it stand in a pure, clean and spotless vessel. (373) Of this *preparation* a small quantity may be drunk at a time, and *afterwards* one should drink milk, and eat molasses, together with ginger, (374) and when the oil is digested, one may partake of Shashtika rice¹⁸⁷ cooked with milk. Now, listen, as I tell you the diseases which it relieves. (375) It is an excellent oil, and most highly valued as a remedy for people afflicted with nervous diseases. (376) It is unsurpassed, indeed, as a medicine¹⁸⁸ promoting the growth of men's strength and health. It removes the *vitiating* air, when it has penetrated through the whole body, (377) and such as are moving about. It cures paralytic shaking and trembling. It is also beneficial to people suffering from sciatica, (378) also in the case of fistula in ano, skin-diseases, and abdominal tumours, also to people suffering from epilepsy, and to young women who suffer from diseases of the womb.

Twelfth Leaf: Reverse.

(379a) All these diseases it infallibly destroys, just as the thunderbolt destroys the Asuras.

(XIII) An Oil for an Errhine for Headache.¹⁸⁹

(380—382.) Boil one kudava⁹ of oil with twice as much of the juice of chebulic

nasya should be *madhyama*, and a *vasti* should be *khara*. Charaka says: *khara* 'bhyāṅgē, mṛidur=nasyē, pānē vastau cha madhyamaḥ, i.e., for ointments (an oil) should be thick, for an errhine it should be soft, and for a potion or enema it should be middling.' See also S., IV, 31⁵³⁶ (§ 1), where some subdivisions are enumerated; also AS., V, 8 (p. 169, l. 15), and AH., V, 6 (v. 19-21). A different four-fold division, applicable to oils applied to the head, is given in AH., I, 22¹⁴² (v. 23), and Mat. Med., p. 18. This division, of course, cannot be here intended.

¹⁸⁴ This formula is found in another, but very much contracted, recension in Ch., VI, 18⁷⁸³, (vv. 142, 143). In a third recension it is given in V., XXII⁴⁰⁵ (vv. 612-614). In this the ingredients are the same, but all the proportions differ.

¹⁸⁵ The construction of the original text is here very awkward. Śvadamshtṛā-vāta-nirjjayam seems to form a compound phrase, meaning 'curing nervous diseases by means of śvadamshtṛā.' But I would suggest to read śvādamshtrām vāta-nirjjayam.

¹⁸⁶ Nabhas and Nabhasya are the two months of the rainy

season, usually called Śrāvaṇa (July-August) and Bhādra (August-September). On the seasons, see Part I, note 76.

¹⁸⁷ Shashtika (*scl. vrīhi*) or 'sixty-days' (rice), also called *gaura-shashtika* or 'the white sixty-days' rice' (see V., LXXXVII¹⁰⁷⁹, verse 2a), is a white variety of rice which ripens in sixty days from the sowing, between Jyēsthā (May-June) and Śrāvaṇa (July-August). This and the red varieties of rice (*rakta-sāli* or *lōhita-sāli*) are considered the most superior for the dietary; see Ch., I, 27¹⁵⁶ (vv. 7, 8) S., I, 20⁷⁷ (§ 2), AH., IV, 8³⁶⁶ (v. 120). The red variety, accordingly, is often simply called *sāli*, i.e., 'the (wholesome) rice'; see Ch., I, 3²⁵ (§ 1). V., LXXXVII, verse 1a¹⁰⁷⁸.

¹⁸⁸ For *ajita*, see v. 143. It is not the name of the formula; *nāma* is a particle of asseveration.

¹⁸⁹ This formula is found in a more concise recension in Ch., VI, 26⁷⁶⁵ (vv. 273-277), and Chd., LV, 52⁵⁶⁰. In another still shorter recension, omitting the proportions, it occurs in V., LXII, 729 (v. 180), and AH., VI, 24⁵¹⁹ (vv. 44b-45). See also *infra*, note 427.

myrobalan, throwing in also pastes of one karsha⁹ each of the following drugs: (381) liquorice, Prapaundarika¹⁵¹, fresh blue lotuses, long pepper, and sandal. This oil should always be administered with two fingers as an errhine.¹⁰⁰ (382) It cures any complaints in the head; it even restores the black hairs of an old man, after *being used for one year*.

(XIV) An Oil for an Antifebrile Enema,¹⁹¹
in 3 ślōka.

(383—385.) Take Jīvantī (*Dendrobium multicaule*), liquorice, Mēdā⁷¹, long pepper, Madana (*Randia dumetorum*), Vachā (*Acorus Calamus*), Riddhi⁷¹, *Rāsnā (*Vanda Roxburghii*), Balā (*Sida cordifolia*), bēl, dill, Śatāvarī (*Asparagus racemosus*), (384) and having made them into a paste, boil *the whole* in milk and water, together with clarified butter and oil. This oily enema¹⁴² makes a remedy for fever. (385) Through removing the *vitiated* humours by the excretory passage and *thus* restoring the balance of the elements¹⁸⁰, the patient gets rid of his pains, feels himself easy, and becomes thoroughly free from fever.

(XV) An Oil for an Enema,¹⁹²
in 4 ślōka.

(386—389.) Take long pepper, liquorice, bēl, dill, Madana (*Randia dumetorum*), Vachā (*Acorus Calamus*), Kushtha (*Saussurea Lappa*), zedoary, root of Pushkara¹³, plumbago-root, and deodar, (387) and having made them into pastes, boil them in oil with twice as much of milk. This makes a most excellent oily enema¹⁴² for piles and flatulency. (388) It cures prolapsus ani, colic, strangury, and dysentery, infirmity in the hips, thighs or back, costiveness, and pains in the groin, (389) slimy discharges, inflammation of the rectum, obstruction of wind and fæces, and frequent evacuation. It is an oily enema which overcomes *all these diseases*.

(XVI) An Oil for the cure of Nervous Diseases,¹⁹³
in 3 ślōka.

(390—392.) Take five prastha⁹ of the juice of radishes and four of curds, also three kuḍava⁹ of śukta⁵⁷ and three of oil, (391) also four pala⁹ of rock-salt and eight of fresh ginger; but if fresh is not available, let it be sixteen pala of dry ginger. (392) This *preparation* relieves sciatica, paraplegia, and attacks of severe gout,¹⁹⁴ also all diseases of the hips, and nervous diseases due to hard drinking.

¹⁹⁰ That is, it should be administered (as the Charaka recension states, see note 189) in the form of a *pratimarśa*. On this see Mat. Med., p. 17, and Śā., III, 8²⁷⁷ (v. 36). It is done by dropping two drops of the medicated oil, at a time, into the nose to be snuffed up. Each drop is to be let fall into the nose with two fingers (as in the case of an *āschyōtana*, see Part I, note 66). According to AH., I, 20¹³⁵ (vv. 9b-10a), V., LXXXI¹⁰⁴⁹ and Śā., III, 8²⁷⁷ (v. 37), the drops are formed by dipping the forefinger, two joints deep, into the oil, and allowing the adherent oil to drop from it.

¹⁹¹ This formula is found, in an identical recension, in Ch., VI, 3⁴⁶⁶ (vv. 245, 246) and in another, only slightly differing, in AH., IV, 1³²⁰ (vv. 121b-123a).

¹⁹² This formula is found in the identical recension in Ch., VI, 9⁵⁴⁶ (vv. 131-135), and in another, also practically identical recension, in SY., V, 64-67⁹⁷, V., IV¹⁵⁰ (vv. 102-105), AH., IV, 8³⁶⁴ (vv. 89b-93a), and Chd., V., 39¹³⁸.

¹⁹³ I have not been able to trace this formula elsewhere. Compare, however, the formula in V., XXII³⁸² (vv. 391-393)

and Chd., XXII, 89²⁹⁹.—*Vāta-hara* is an abbreviation of *vāta-vyādhi-hara*. See *ante*, note 141.

¹⁹⁴ *Khallivāta*, in the simpler form *khallī* or *khālvi*, is mentioned in MN., XXII, 44¹⁵⁸ as a kind of *vāta-vyādhi*, whence it is quoted by Dṛiḥabala in Ch., VI, 28⁷⁷⁶ (v. 55). It is described as excruciating pains (*avamōtana*) in the feet, legs, thighs, and wrists. It also occurs in SY., VI, 61¹¹⁹, where it is mentioned as a symptom of *vishūchikā*, or cholera, and explained in Śrīkaṇṭhadatta's commentary as 'crushing pains in the hands and elsewhere.' In AS., III, 15³⁰² (quoted in AH., III, 15, v. 55a) *khallī* is said to be a severe form (*tīvra-ruj-ānvitā*) of the two diseases *gridhrasī* and *viśvāchī*, though this definition is said by Gayādōsa (as stated by Vijaya Rakshita in his comment on the passage of the Nidāna, above referred to) to be really due to Hārīta. Suśruta in II, 1²⁴⁹ (v. 73, 74) does not employ the term *khallī* at all, but he names the two diseases *gridhrasī* and *viśvāchī*, and describes them as gout in the lower and upper limbs respectively. See also *ante*, note 181.

(XVII) An Oil for an Errhine for Hair and Head Diseases,¹⁰
in 3 ślōka.

(393—395.) Take the following ten ingredients: liquorice, Prapaundarika¹⁵¹, Vṛihatī (*Solanum indicum*), rock-salt, and seeds of Adhakī (*Cajanus indicus*), also half-ripe bēl, Harēṇu (*Piper aurantiacum*), the two Haridrā⁶⁶, and long pepper. (394) Make pastes of one aksha⁹ each of these,

Thirteenth Leaf: Obverse.

and boil *the whole* slowly in half a prastha⁹ of oil and four times as much of milk, and, after clarifying it, administer it perseveringly in the form of an errhine. (395) By this preparation wrinkles and grey hair,, brown spots on the face,, and all (diseases of the head) are cured. So the medical authorities declare.

(XVIII) An Oil to remove Wrinkles and Grey Hair.¹⁰

(396—398.) Take one prastha⁹ each of the juice of emblic myrobalan, oleander, Bhṛingaraja (*Eclipta alba*), and (sweet) oil, (397) and boil these four prastha in a new vessel of iron. Then let it stand for a month in a box made of piasāl-wood (*Terminalia tomentosa*). (398) This oil removes wrinkles and premature grey hair, and may even change the white colour of cows, dogs, asses, camels, and white-feathered birds.¹⁹⁵

(XIX) A Formula for curing Adenia.¹⁹⁶

(399—401a.) Take equal parts of Phanijjhaka (*Origanum Marjorana*), Kshavaka (*Achyranthes aspera*), Nâdēya (*Sesbania ægyptiaca*), Navamâlikâ (*Jasminum Sambac*), sonchal-salt, Vachâ (*Acorus Calamus*), and asafoetida. (400) *That is, of these drugs* take one aksha⁹ each, and boil them in one prastha⁹ of oil over a gentle fire, together with an equal part (*i.e.*, one prastha) of the urine of a faultless female animal¹⁹⁷ and four parts (*i.e.*, four prastha) of goat's milk. (401a) Then administer *the preparation* in the form of an errhine to cure adenia.

(XX) Another excellent Formula for Adenia.¹⁹⁸

(401b—403a.) Take a dead black snake, and place it in a new (earthen) vessel, (402) and having *covered its mouth* with a plaster (of clay), roast it, thus enclosed, over a very strong fire. When done, mix it up with oil, and place it as a plaster over his (*i.e.*, the patient's) enlarged glands. (403a) An application of *this remedy* for no more than seven days will effect a cure of the adenia.

¹⁹⁵ The effect on the white colour of animals is only added in *majo rem gloriam* of the oil.

¹⁹⁶ I have not been able to trace this formula elsewhere. Compare, however, the formula in Ch., VI, 26⁷⁵⁶ (vv. 137, 139), given in the section on head-diseases.

¹⁹⁷ *Sasyikā* must here refer to the cow, according to the rule given in Part I, verse 59. The word *sasyaka* is, in Pāṇini, 5, 2, 68, said to mean 'endowed with good qualities,' as *sasyakō manih* 'a faultless gem,' *sasyakō vatsah* 'a faultless calf'; see the Petersburg Dictionary.

¹⁹⁸ With this formula may be compared one in AH., VI, 30⁵³⁵ (vv. 28b, 29a), which recommends, among other things, an ointment made with the burnt (*dagdha*) body of a black snake which has died naturally (*svayam-mṛita*) and the oil of *Inguda* (*Balanites indica*). The 'black snake' is a variety of the *Naga tripudians* or Cobra. Of this species there exist several varieties in India, the prevailing colour of which is black or blackish, with certain white marks. See Dr. Günther's Reptiles of British India, p. 339.

THE FOURTH CHAPTER: MISCELLANEOUS FORMULAE.

In this chapter we shall describe miscellaneous formulae.

Two Formulae for the Cure of Leprosy,¹⁹⁹

in 2 ślōka.

(I)

(Verse 404.) Having poured out²⁰⁰ roasted sesame-seed from the roasting pan into milk to cool it, make it thoroughly into a paste. This, when mixed with liquorice, will form a poultice²⁰¹ which may be used as a remedy against leprosy.

(II)

(405.) Similarly an excellent plaster¹⁵⁸ may be made of wheat with goat's milk and clarified butter. This may be considered the principal remedy for the cure of leprosy.

Four Formulae for the Cure of Fetid Diarrhœa,²⁰²

in 7 ślōka.

(I)

(406.) Clarified butter, oil, treacle, śukta⁵⁷, and ginger;—a potion, made of these five ingredients, will give immediate relief from severe pains in the sacrum.

(II)

(407 and 408.) Root of plumbago and of long pepper, Vachâ (*Acorus Calamus*), Kaṭukarôhinî (*Picrorrhiza Kurroa*), Pâthâ (*Stephania hernandifolia*), seeds of Vatsaka (*Holarrhena antidysenterica*), chebulic myrobalan, and ginger;—(408) a preparation of these quickly stops acute diarrhœa attended with fetid discharges²⁰³ and severe pain, also stools charged with phlegm or bile.

¹⁹⁹ These two formulae are quoted in my preliminary paper on the Bower MS., in the Proceedings of the Asiatic Society of Bengal, for 1891, p. 58.—Substantially the same two formulae are found in V., XXIII⁴⁰⁸ (v. 35), Chd., XXIII, 11, 12³⁰⁶, and BhP., II, 2²⁰⁹, with the following two differences, however: (1) liquorice is omitted from the first formula, (2) both formulae are for plasters (*pralēpa*). With the formulae, as given in these three works, Ch., VI, 29⁸⁰² (v. 137) and AH., IV, 22⁴³⁰ (v. 33) agree, with the following difference that they substitute the root of *Sahachara* (*Barleria cristata*) and *Jivanti* (*Dendrobium multicaule*) for *Gôdhūma* or 'wheat'. Ch., VI, 29⁸⁰² (v. 131), and V., XXIII⁴¹⁰ (v. 63), however, give a formula for making a poultice (*pradēha*) which, in addition to sesame, liquorice, and milk, requires three or four other ingredients. Moreover, Chd., XXIII, 11³⁰⁶ quotes in its commentary a formula from Charaka for making a poultice which otherwise agrees with our second formula. It runs thus: *vâtē sa-raktē sa-ghṛitah pradēho | gôdhūma-chūrṇam chhā-galī-payaś=cha* || i.e., 'a poultice may be made with clarified butter, powdered wheat, and goat's milk.' I have not been able, however, to trace this formula in any copy of Charaka accessible to me.

²⁰⁰ Arunadatta, in his commentary to AH., I, 30 (v. 17), explains *nirvāya* by *śīti-kṛitya*, having cooled (see also ibidem, IV, 6 (v. 60), and *nirvāpya piṣṭvā* by *śīti-kṛitya kṣhāra-nishyadēna dṛishadi piṣṭvā*, i.e., having cooled and made it into paste with lye in a mortar. Ibidem, II, 1 (v. 39) *nirvāpya kṣhīrē* is explained by *nivēśya kṣhīrē*, having dipped into milk. This is said of a doll made of gold or silver

or iron, which is to be made red-hot, and then to be dipped in milk; of that milk a handful may be drunk as a charm.

²⁰¹ On plasters (*pralēpa*) and poultices (*pradēha*) see Mat. Med., p. 19; also S., I, 18⁶⁹ and Śâ., III, 11²⁹⁶ (vv. 63, 64).

²⁰² The first three formulae are in the original text marked off by the numbers 1, 2, 3. The first of them, as I learn from Dr. Cordier, occurs in KS., XI, v. 58. The second formula is found almost identically in S., VI, 40⁷⁸³ (vv. 35a, 36b) and V., II⁸³ (vv. 32, 33), but the latter reads *sa-vātām* for *purīṣam*. AH., IV, 9³⁷⁵ (vv. 104b, 105a) has it in another recension; and SY., III, 34⁷⁵ and Chd., III, 23⁹⁰ gives only the latter portion of the formula, beginning with *pâthâ*. The third and fourth formulae are mere varieties of one another, the fourth substituting *saindhava* for *tryūshana*, the other five ingredients being the same in both. Both formulae, as the corresponding recensions, quoted below, show, consist of six ingredients. In the third formula, as given in our Manuscript, there is probably a clerical error, and *Vachâ* should be read for the second *tathâ*. Compare the similar recensions, all of which include *Vachâ*, in S., VI, 40⁷⁸³ (v. 35a), V., II⁸³ (v. 27), Chd., III, 20⁸⁹, AH., IV, 9³⁷⁵ (vv. 105b, 106a), BhP., II, 1¹⁴², HS., III, 3¹⁶⁶. An early identical recension of the fourth formula occurs in V., II⁸³ (v. 29) and BhP., II, 1¹³⁵. S., VI, 40⁷⁸⁴ (v. 46) has another recension of it which omits *saindhava*.

²⁰³ *Āma-samutthānam-atīśāra*, is the same as the simpler *ām-ātīśāra*, lit., unripe, or undigested, diarrhœa. *Āma* is a morbid state of the bowels, when they do not digest properly, but excrete solid and fetid matter.

(III)

(409 and 410.) Chebulic myrobalan, the three acrids²⁰³, asafœtida, sonchal-salt, also Vachâ (*Acorus Calamus*) and Ativishâ (*Aconitum heterophyllum*);—a preparation made of these may be drunk with warm water. (410) It will stop acute diarrhœa attended with fetid discharges²⁰³ and severe pain, just as the shore stops the raging sea.

(IV)

(411 and 412.) Chebulic myrobalan, Prativishâ (*Aconitum heterophyllum*), asafœtida, sonchal-salt, Vachâ (*Acorus Calamus*), rock-salt;—

Thirteenth Leaf: Reverse.

a paste made of these may be drunk with warm water. (412) This preparation against fetid diarrhœa is much approved by physicians, but a doctor who cares for his profit and credit should use it with discretion.

(Four Formulae for Astringents against Diarrhœa.²⁰⁴)

(I)

(413 and 414a.) Kernels of the jâman and mango²⁰⁵, Rôdhra (*Symplocos racemosa*), rind of pomegranate, rasot, Anantâ (*Hemidesmus indicus*), small cardamoms, and filaments of the lotus;—(414a) these mixed with one part of honey are said to make an excellent astringent,

(II)

(414b—416a.) Rasot, galena, talc, Śailêya (*Parmelia perlata*)²⁰⁶, Musta (*Cyperus rotundus*), Katphala (*Myrica sapida*), (415) kernels of the jâman and mango²⁰⁵, also bêl, Yâsa (*Alhagi maurorum*), Vatsaka (*Holarrhena antidysenterica*), Śalmala (*Bombax malabaricum*), Dhâtakî (*Woodfordia floribunda*), Lôdhra (*Symplocos racemosa*), Phalî (*Aglaia Roxburghiana*), Mêchika (*Moringa pterygosperma*), and red ochre;—(416a) a potion prepared from these with rice, treacle and honey makes an excellent astringent.

(III and IV)

(416b and 417.) A potion may be prepared either from cucumber-seed with rasot, (417) or from rind of pomegranate and bark of Vatsaka (*Holarrhena antidysenterica*) with butter-milk. These two formulae are considered to make excellent astringents in cases of diarrhœa.

²⁰⁴ None of these four formulae can be traced in any other medical work. There are, however, many corresponding formulae, made up, in varying combinations of the same ingredients, such as Ch., VI, 10⁵⁶² (vv. 57-61, six formulae), S., VI, 40⁷⁸⁵ (vv. 60-62, six formulae, vv. 66-68, four formulae, vv. 69-70, 89), AH., IV, 9³⁷³ (vv. 56a-63), V., II⁸⁵ (vv. 52, 58, 66, 86, 92-94, 105, 174, 175). Chd., III, 29, 31, 39, 41⁹², BhP., II, 1¹³⁶ (vv. 1-4, four formulae, also p. 138, l. 15, 16). It may be noted, that most of the formulae, here quoted, also differ from one another.

²⁰⁵ By *asthi* or 'stone' of the mango is intended the kernel of the stone, or *asthi-madhya*, as the corresponding formula in S., VI, 40⁷⁸⁵ (v. 67) shows. It is also called *majjan*, marrow, see note 294.—Jâman is the *Eugenia Jambolana*.

²⁰⁶ The reading of the text *andhâ sailôbhâ* is puzzling and probably corrupt. I read *abhrâm sailêyam*, as suggested by Kavirâj Binod Bihari Gupta Kavibhûshana, these two drugs being used in the case of bowel complaints. The emendation, however, is not altogether satisfactory.

rind of pomegranate, rasot, Anantâ (*Hemidesmus indicus*), small cardamoms, and filaments of the lotus;—(414a) these mixed with one part of honey are said to make an excellent astringent.

(II)

(414b—416a.) Rasot, galena, talc, bitumen¹⁶², Musta (*Cyperus rotundus*), Katphala (*Myrica sapida*), (415) kernels of the jâman and mango¹⁶¹, also bēl, Yâsa (*Alhagi maurorum*), Vatsaka (*Holarrhena antidysenterica*), Śalmala (*Bombax malabaricum*), Dhâtakî (*Woodfordia floribunda*), Lôdhra (*Symplocos racemosa*), Phalî (*Aglaia Roxburghiana*), Mēchîka (*Moringa pterygosperma*), and red ochre;—(416a) a potion prepared from these with rice, treacle and honey makes an excellent astringent.

(III and IV)

(416b and 417.) A potion may be prepared either from cucumber-seed with rasot, (417) or from rind of pomegranate and bark of Vatsaka (*Holarrhena antidysenterica*) with butter-milk. These two formulae are considered to make excellent astringents in cases of diarrhœa.

A Formula of the Âsvins to cure Hæmorrhage,¹⁶³

in 8 ślôka.¹⁶⁴

(418 and 425.) Loudly proclaiming, the excellent Âsvins, the best of physicians, for the benefit of those suffering from hæmorrhage, hæmorrhoids, and fever, (419) taught to Vâsava (i.e., Indra) the following formula, which had been declared by Brahma of old:—Sandal, Nalada (*Nardostachys Jatamansi*), Rôdhra (*Symplocos racemosa*), Uśîra (*Andropogon muricatus*), filaments of the lotus, (420) Nâgapushpa (*Messua ferrea*), bēl, Bhadramustâ (*Cyperus rotundus*), and sugar; also Hirivêra (*Pavonia adorata*), Pâthâ (*Stephania hernandifolia*), fruit and bark of Kutâja (*Holarrhena antidysenterica*), (421) ginger, Ativishâ (*Aconitum heterophyllum*), Dhâtakî (*Woodfordia floribunda*), and rasot; also kernel of the mango and the jâman, and gum of Môcha (*Bombax malabaricum*), (422) blue lotus, Samangâ (*Mimosa pudica*), small cardamoms, and rind of pomegranate. Of these twenty-four ingredients take equal parts, (423) and make them up into a potion with rice-water and honey. As such it is beneficial to people suffering from hæmorrhage, hæmorrhoids, and fever; (424) it may also be given to people subject to fits of swooning and syncope⁴⁹, and troubled with morbid thirst; it also cures diarrhœa, vomiting, and suppression of the menses in women. (425) This formula, devised by the Âsvins, is a remedy against hæmorrhagia; it is also said to be an excellent means of arresting threatening miscarriages.

¹⁶² The reading of the text here is puzzling and probably corrupt. I read *abhram*, *śailēyam*, as suggested by Kavirâj Binod Bihari Gupta Kavibhûshana, these two drugs being used in the case of bowel complaints. The emendation, however, is not altogether satisfactory.

¹⁶³ I cannot trace this formula in any medical work, except the Vangasēna XI²²⁷ (vv. 93-99a). There it is given

in nearly identical terms, with only a few slight verbal alterations.

¹⁶⁴ The text reads "12 ślôka." But this is clearly an error; for the Âsvina formula consists only of 8 ślôka. But if the preceding formulae for astringents are included, the total amounts to 13 ślôka (or 12½, if the count be made from the asterisk in the text).

A Formula of the Ásvins to cure Hæmorrhage,²⁰⁷(including which there are) 13 ślōka.²⁰⁸

(418 and 425.) Loudly proclaiming, the excellent Ásvins, the best of physicians, for the benefit of those suffering from hæmorrhage, hæmorrhoids, and fever, (419) taught to Vāsava (*i.e.*, Indra) the *following* formula *which had been* declared by Brahma of old:—Sandal, Nalada (*Nardostachys Jatamansi*), Rôdhra (*Symplocos racemosa*), Uśîra (*Andropogon muricatus*), filaments of the lotus, (420) Nâgapushpa (*Messua ferrea*), bēl, Bhadramustâ (*Cyperus rotundus*), and sugar; also Hirivêra (*Pavonia odorata*), Pâthâ (*Stephania hernandifolia*), fruit and bark of Kuṭaja (*Holarrhena antidysenterica*), (421) ginger, Ativishâ (*Aconitum heterophyllum*), Dhâtakî (*Woodfordia floribunda*), and rasot; also kernel of the mango and the jâman²⁰⁵, and gum of Môcha (*Bombax malabaricum*), (422) blue lotus, Samangâ (*Mimosa pudica*), small cardamoms, and rind of pomegranate. Of these twenty-four ingredients take equal parts, (423) and make them up into a potion with rice-water and honey. As such it is beneficial to people suffering from hæmorrhage, hæmorrhoids, and fever, (424) it may also be given to people subject to fits of swooning and syncope⁶², and troubled with morbid thirst; *it also cures* diarrhœa, vomiting, and suppression of the menses in women. (425) This formula, devised by the Ásvins, is a remedy against hæmorrhagia; it is also said to be an excellent means of arresting *threatening* miscarriages.

(Four Formulae for the Cure of Dysentery.²⁰⁹)

(I)

(426 and 427.) Take curds, clarified butter, oil, ginger, and molasses, also honey and powder of (dried) jujube; and having stirred the whole together, give it *to the patient* to drink. (427) This preparation effectively restrains acute diarrhœa, just as the wind does the current of a river as if it were obstructed by a weir of creepers.

(II)

(428.) Or prepare a paste of jujube leaves, chebulic myrobalan, and Rôdhra (*Symplocos racemosa*), with the juice of wood-apples and honey, and take it as a draught with curds.

(III)

(429.) *A patient* overcome with the pains of dysentery should drink boiled with the root of Âdhakî (*Cajanus indicus*), after having strained it and boiled it again in smoked clarified butter²⁰⁹. This *preparation* relieves the most intense pain.

²⁰⁷ I cannot trace this formula in any medical work, except V., VIII ²²⁷ (vv. 93-99a). There it is given in nearly identical terms, with only a few slight verbal alterations.

²⁰⁸ The text reads "12 ślōka, which must be a clerical error for 13; for the count is from v. 413 to v. 425. The Ásvina formula, by itself, has only 8 ślōka.

²⁰⁹ I have been able to trace only the first and second of these four formulae in other medical works. The first occurs in a different recension, substituting *sitā* or 'sugar' for

karkandhu-chūrṇa, in V., II ¹⁰⁷ (v. 282). In a third recension, in which it is broken up into two distinct formulae, it is found in AH., IV, 9 ³⁷⁰ (v. 18). The second formula occurs in two different recensions in V., II ¹⁰⁷ (v. 287, also v. 103) and AH., IV, 9 ³⁷¹ (vv. 36b and 37a). In both of these *Dhâtakî* (*Woodfordia floribunda*) is substituted for *Abhayā* or 'chebulic myrobalan.'—On "smoked clarified butter" (v. 429), see *infra*, v. 868.

THE EIGHTH CHAPTER: FORMULAE FOR APHRODISIACS.³¹⁶(I) The SARASVATÎ Clarified Butter.³¹⁷

(Verses 814 and 815.) Juice of sugar-cane, Vidârî (*Ipomoea digitata*), emblic myrobalan, clarified butter, milk, and honey:—*of these* take one prastha⁹ each, and an equal quantity of meat-broth, (815) also five pala of liquorice and one prastha of decorated Mâsha (*Phaseolus Roxburghii*). This is the Sarasvatî clarified butter for a Râjarshi who desires to beget a son.

(II)

(816—818.) ¹⁰Boil one prastha⁹ each of the juice of emblic myrobalan and sugar-cane, also one prastha each of the milk of a goat and of a cow³¹⁸; (817) also one prastha each of the juice of Vidârî (*Ipomoea digitata*) and clarified butter. When this *mixture* has become cool add one prastha of honey and twenty-five pala³¹⁹ of sugar, (818) also two kuḍava (*i.e.*, one each) of black pepper and long pepper, cleaned and powdered. This makes a most excellent quickening, strengthening, and aphrodisiac *medicine*.

(III)

(819.) ³²⁰Boil clarified butter and paste of Śatâvarî (*Asparagus racemosus*) in ten times *the former's* quantity of milk. This, when mixed with sugar, long pepper, and small-bees' honey, makes a most excellent aphrodisiac.

(IV)

(820.) ¹³Juice of Gôkshuraka (*Tribulus terrestris*), clarified butter, and milk of both a goat and a cow, together with one prasrita⁹ of honey, makes a prescription *capacitating a man* for twenty (seminal) emissions.

(V)

(821 and 822.) ¹⁰Let powders of Vidârî (*Ipomoea digitata*), and cowhage, also emblic myrobalan, Yavâsa (*Alhagi maurorum*), and

Twenty-fifth Leaf: Reverse.

be made into a paste with milk. (822) Let it then be fried in clarified butter, and when it has cooled, let it

³¹⁶ The colophon in the text adds that this compendium or conspectus is drawn from the doctrines of sundry professors (*nân-âchârya*) of medicine.

³¹⁷ I have not been able to trace this formula elsewhere. It is not apparent why it is called the Sarasvatî clarified butter. *Sarasvatî* is a synonym of *Brahmî* (*Herpestris Monieria*) as well as of *Jyôtiṣmatî* (*Cardiospermum Halicacabum*). But neither of these two enter into the formula. There are two other formulae for a Sârasvata clarified butter, of which one will be found *ante*, p. 103. That gives a remedy against defects in speech, and takes its name from Sarasvatî, the goddess of speech. The other, given in the Vangasêna, p. 994 (see *ante*, p. 103, note 107), is a *rasâyana* or tonic

prescription, and takes its name from its first ingredient *Brahmî*.

³¹⁸ *Payasaḥ*, 'of milk,' I refer to cow's milk, as it is not specified; see *ante*, Part I, p. 17, note 40. Compare also the fourth formula (verse 820) where also both are prescribed, goat's milk as well as cow's milk.

³¹⁹ The measure is here not mentioned in the text; but *pala* must be intended. Twenty-five pala are slightly more than one and a half prastha. See *ante*, note 9.

³²⁰ This formula is found, in the identical recension, in the Charaka VI, 2⁴⁶⁴, Chakradatta LXXI, 11⁷³⁷, and Vangasêna LXXV¹⁰⁰³ (v. 74).

be mixed with honey. By eating this confection a wasted man will again attain to sexual vigour.

(VI)

(823 and 824.) ³³¹Take together with five times as much of sugar, likewise honey and clarified butter. (824) Of this *confection* a dose of one aksha should be eaten by a male whose member has suffered decay. He should not take any sour or acrid food, and he should abstain from bad practices.

(VII)

(825—827.) ¹⁰Boil one pala⁹ each of cowhage and of the roots of the set of five drugs⁸¹ in one adhaka of water. To this decoction add one and one-half as much of milk, (826) also one prastha of powdered sugar, and one prastha each of honey and clarified butter. Then with wheaten flour make this up into boluses weighing one pala each. (827) By eating one of these a man may engage in sixty copulations, and becomes a favourite with women. It is said to be a most excellent aphrodisiac.

(VIII)

(828.) ¹⁰The more any one eats of purified and decorticated¹¹⁴ sesamum-seeds, macerated in the broth of sparrows, the more he will be able to engage in sexual intercourse.

(IX)

(829 and 830a.) ³²²Let wheaten flour and cowhage-seeds be boiled in milk, and, when cool, mix with honey and clarified butter. After having eaten this *confection*, drink some milk of a heifer. (830a) By the use of this a man will acquire unfailing sexual vigour for a fortnight.

(X)

(830b—832a.) ³²³Let well-washed Mâsha (*Phaseolus Roxburghii*) be boiled in a decoction of Śvadamshtrâ (*Tribulus terrestris*) and milk, (831) and mix it with honey and clarified butter. Of this *confection* a lump of the size of a bēl⁹ may be eaten, and after it, in the evening, some milk mixed with sugar should be drunk (832a) by any man who desires in one day to go into a hundred women.

(XI)

(832b and 833a.) ¹¹Vidârî (*Ipomoea digitata*) should be fried in milk with clarified butter and honey. (833a) When cool, one may eat of this *confection* as much as one desires, and can then engage in sixty copulations.

(XII)

(833b and 834a.) ³²⁴Take powders of Vidârî (*Ipomoea digitata*), macerate it in the

³²¹ I have not been able to trace this formula elsewhere. Compare, however, the formula in the Bhâva Prakâśa III²²⁴ (lines 8, 9) and Dutt's Hindu Materia Medica, p. 125, where also a warning against "bad practices" is given.

³²² This formula, in a practically identical recension, is found in the Suśruta IV, 26⁵¹⁹ (v. 27). In another recension, combining it with formula XXII, it is given in the Ashtānga Hṛdaya VI, 40⁵⁷⁷ (vv. 23b, 24).

³²³ Compare the formula in the Ashtānga Hṛdaya VI, 40⁵⁷⁸ (v. 34), where, however, three other ingredients are added.

³²⁴ This formula is found, in another recension, in the Suśruta IV, 26⁵¹⁸ (v. 20), Chakradatta LXXI, 3a⁷³³, Vangasēna LXXV⁹⁹⁷ (v. 11), and Ashtānga Hṛdaya VI, 40⁵⁷⁷ (v. 26). See also Dutt's Hindu Materia Medica, p. 205, note 3. In a third, longer recension, with six additional ingredients, it occurs in the Charaka VI, 2⁴⁶⁸ (lines 1-6).

juice of the same *plant*, (834a) and make it up *into a confection* with honey and clarified butter. By eating this a *man* is made fit for ten emissions.

(XIII)

(834b and 835a.) ³²⁵Similarly powders of emblic myrobalan may be macerated in the juice of the same, (835a) and made up *into a confection* with clarified butter and honey. By eating this one becomes fit for one hundred emissions.

(XIV)

(835b and 836a.) ¹⁰Similarly the roots and buds and fruit of Aśvagandhâ (*Withania somnifera*), (836a) drunk during the day with milk, produce a night of twenty *emissions*.

(XV)

(836b and 837a.) ³²⁶Adhyandâ (*Hygrophila spinosa*), roots of long pepper, clarified butter, and seeds of cowhage, (837a) when applied as a plaster to the (soles of the) feet, render a man potent, so long as he does not touch the earth.

(XVI)

(837b and 838a.) ³²⁶Having plucked a sparrow of its feathers, add it to ten times its quantity of Dêmbukâ³²⁷ (*Oroxylum indicum*). (838a) Clarified butter, boiled with this, is much recommended as a plaster for the feet.

(XVII)

(838b—840a.) ³²⁸Take powders of Vidârî (*Ipomoea digitata*), Mâshâ (*Phaseolus Roxburghii*), and red rice, (839) mixed with the fat of a pig, and the eggs and broth of sparrows, add salt at discretion, and bake *with the whole* a śashkulî³²⁹ in clarified butter. (840a) By dint of eating a pâñitala²²¹ of this, a *man* may go into one hundred women.

Twenty-sixth Leaf: Obverse.

(XVIII)

(840b and 841a.) ¹⁰ (may be taken) with honey and clarified butter; (841a) and on drinking milk after it, in the summer, a *man* may enter into ten copulations.

(XIX)

(841b—843a.) ¹⁰Let there be the following eight ingredients:
(842) and juice of the knots of lotus-stalks. Making a paste of these

³²⁵ This formula, in a different recension, is found in the Suśruta IV, 26⁵¹⁸ (vv. 21, 22a), Chakradatta LXXI, 3b⁷³³, Vangasêna LXXV⁹⁹⁷ (v. 12), and Ashtânga Hridaya VI, 40⁵⁷⁷ (vv. 27, 28a).

³²⁶ With reference to formulae XV and XVI, compare a formula given in the Suśruta IV, 26⁵¹⁹ (vv. 28, 29) for a foot-plaster possessing the same virtue. It is curious that the latter has *chatak-âṇḍa* or 'sparrow's eggs,' where our

formula has *adhyâṇḍâ chatakâḥ*. The latter is a synonym of *pippalî-mûla* or 'roots of long pepper.'

³²⁷ Dêmbukâ is not given in any dictionary. I take it to be the same as *Dimbikâ*, which is a synonym of *Syônâka*.

³²⁸ Compare the formula in the Suśruta IV, 26⁵¹⁸ (vv. 14, 15).

³²⁹ A *śashkulî* is a pastry-puff in the form of a crescent, or of a *môdaka* or 'bolus.'

with goat's milk, bake a śashkuli³²⁰ in clarified butter. (843a) By eating of this only as much as the joint of the thumb, (one becomes fit for) half (a hundred) emissions.

(XX)

(843b and 844a.)¹⁰ (844a), and following it up with a draught of spirits of rice, a man attains to sexual vigour.

(XXI)

(844b and 845a.)³³⁰ He who eats to satiety of the flesh of a cock, and drinks milk after it, (845a) his member will not suffer relaxation, nor his semen, exhaustion, when he engages in copulation.

(XXII)

(845b and 846a.)³³¹ He who eats shashṭika rice¹⁴⁷, prepared with clarified butter, together with a sauce of Māsha (*Phaseolus Roxburghii*), (846a) and drinks milk after it, remains awake all night in sexual excitement.

(XXIII) The INDRAPRIYA prescription,¹⁰ by Uśanas.³³²

(846b and 847a.) Sugar, honey, milk, clarified butter, the three acrids²³, and water: (847a) all these should be boiled together, and may then be taken as the Indrapriya or potion 'beloved by Indra.'

THE NINTH CHAPTER: FORMULAE FOR COLLYRIA.³³³

(I)

(Verses 847b—850a.)³³⁴ Of conch-shell take four parts; of realgar, one-half as much; (848) of black pepper, one-half as much as of realgar; of rock-salt, one-half as much as

³³⁰ This formula occurs, in a practically identical recension, in the Charaka VI, 2⁴⁵⁹ (lines 8, 9). The only difference is that the latter substitutes sparrow's flesh for cock's flesh. Compare, however, *ibidem*, line 13, from which it would appear as if in our Manuscript two formulae had been confused.

³³¹ This formula, in the identical version, occurs in the Charaka VI, 2⁴⁵⁹ (lines 10, 11). Compare also Ashtāṅga Hṛdaya VI, 40⁵⁷⁷ (vv. 23b, 24).

³³² Uśanas, with the patronymic *Kāvya*, was an ancient rishi or 'sage,' who was the preceptor of the asuras or daityas, the opponents of the dēvas. As such he is always represented in antagonism to Indra, the chief of the dēvas. It is curious that here the composition of a remedy which was a favourite with Indra is ascribed to him. It is curious also that both he as well as Vṛihaspati, the preceptor of the dēvas, (see *ante*, p. 143, note 297) are named as authors of medical formulae. To both the composition of *mantra* or 'charms' and *naya* or 'rules of conduct' are ascribed in the Mahābhārata, and there is an antitoxic charm, called *Uśanaś-stōma* or 'Uśanas' hymn' (see the larger Petersburg Dictionary). But there is no Uśanas known as the author of any medical work, though there exists an author, with that

name, of a *smṛiti* or 'law-book' (see Aufrecht's *Catalogus Catalogorum*).

³³³ With the exception of one or two formulae, none of those given in this chapter can be traced in any other medical work, though, of course, the ingredients, by themselves, are common to all works on Hindu medical science.

³³⁴ The first part of this formula, giving the ingredients, is found, identically the same, in the Vangasēna LVIII, pp. 800 and 812, forming there the first part of two different recensions. The second part, in one of the latter, runs thus: *ētach=chūrṇ-āñjanam śrēshṭham sukrayōs=timirēshu cha | pichchaṭē madhunā yōjyam-arbudē mastunā tathā*; i.e., 'a collyrium made of powders of these, is an excellent remedy against leucoma and cataract; in ophthalmia it should be applied with honey; in tumours, with whey.' In the other recension it runs thus: *vārinā timiram hanti ch-ārbudam hanti mastunā | pichchaṭam madhunā hanti strī-kshirēna tath-ārunam*, i.e., 'applied with water it cures cataract; with whey, tumours; with honey, ophthalmia; with woman's milk, leucoma.' Identical with the two Vangasēna recensions the formula also occurs in the Chakradatta LXII, 59⁶¹³, and LXII, 90⁶²⁰.

of black pepper. These make the suppository used in the Vidêha³³⁵ country, which, like a knife³³⁶, destroys diseases, (849) *viz.*, lesions in the eye, disorders of the tunics³³⁷, cataract, purulent discharges, and bloodshottness. The conch-shell should be ground in cow's milk, realgar in goat's milk, black pepper in sheep's milk, and rock-salt in human milk.

(II)

(851.) ¹⁰One part of black pepper, two of clearing-nut, three of sugar, four of cuttle-fish bone, together with five of calx of brass make a suppository, *useful* in all diseases of the eye.

(III)

(852.) ¹⁰Sugar, red ochre, honey, and calx of brass, applied in the form of an embrocation, is a pre-eminent remedy against all diseases of the eye.

(IV)

(853.) ¹⁰Let curds mixed with salt be well rubbed on an iron vessel, and *with it* anoint the eye when it suffers severe pain; it will *then* quickly become well.

(V)

(854.) ¹⁰Rock-salt, Vrihatî (*Solanum indicum*), copper, Kaṭukâ (*Picrorrhiza Kurroa*), conch-shell, and long pepper make the kôkilâ-suppository³³⁸ for the cure of conjunctivitis, leucoma, and blear-eye.

(VI)

(855.) ¹⁰Let long pepper and turmeric be rubbed repeatedly on a mirror³³⁹, and anoint with them the eye when it suffers severe pain; it will then quickly become well.

(VII)

(856 and 857.) ³⁴⁰Let resinous wood of Chîdâ (*Pinus longifolia*) be made into fine powder, and let this powder be macerated for three days in the urine of a he-goat. (857) It then becomes a most excellent collyrium for the cure of blear-eye and worms.

³³⁵ The Vidêha country is the modern Tirhût, with the ancient capital Mithilâ. It had a reputation for surgery. A *śâlākya-śāstra* or 'textbook on surgery' is ascribed to one of its kings (*vidêha-pati*), see Suśruta VI, 1⁶⁵⁸ (v. 3a). See *infra*, note 347.

³³⁶ *Barddha-ttî* (or rather *varddha-ttî*) I take to be prâkrit for *varddha iti*. *Vardha* is not given in any dictionary, but I take it to mean 'cutting instrument,' used in surgical operations on the eye.

³³⁷ *Paṭala*, 'wrapper,' 'tunic' of the eye. There are six of these, according to Hindu medicine: 1 and 2, the two eyelids, 3, the sclerotic, said to be made of bone; 4, the choroid, said to be made of fat; 5, the retina, said to be made of flesh; and 6, the vitreous humour, said to be made of fire and water. Disorders in the last mentioned lead to *timira* (also called *kācha*, or *nīlikā*, or *linga-nāśa*), i.e., 'cataract.' See on these and the other constituent parts of the eye, Nidāna, p. 221 (Dr. Dutt's footnote), Suśruta VI, 1⁶⁵⁹ (vv. 12 ff.), White's System of Hindu Medicine, p. 292 (where the statements, however, are not quite correct).—*Ālūna* 'lesion' I cannot find used elsewhere as a term for any disease. It

probably signifies the two kinds of *śukra* or *śukla* or 'leucoma' of the *krishṇa-maṇḍala* or 'cornea,' *viz.*, the *a-vraṇa* or 'simple' and *sa-vraṇa* or 'ulcerous.'—*Mala* signifies the discharges in purulent ophthalmia, also called *picchhata*.

³³⁸ *Kôkilâ*, or the hen-bird of the Indian cuckoo, is the name of this preparation. The reason I cannot discover. There are two suppositories under this name mentioned, one in the Ashtāṅga Hṛdaya VI, 13⁴⁸⁸ (v. 70), the other in the Chakradatta LXII, 85⁶¹⁹; but they both differ entirely from our formula.

³³⁹ The use of a mirror is twice mentioned in formulae of the Ashtāṅga Hṛdaya. Once in VI, 16⁴⁹⁴ (v. 30b); certain drugs, though different ones, are to be ground on it, as in our formula. In the other case, in VI, 38⁵⁶¹ (v. 16) the wound of a person bitten by a rat, is to be scarified with an arrow or a mirror; in the latter case, I suppose, by the reflection of the rays of the sun, focused on it.

³⁴⁰ Compare the formula in the Charaka VI, 24⁷⁹⁶ (lines 22, 23), which substitutes *Ēlā* or 'cardamoms' for *chîdâ*-wood, but otherwise is practically the same. The Bengālî edition has *viḍa*-salt.

with goat's horn, and stirred into human milk, *may be used* as a douche for the relief of severe pains *in the eyes*.

(XV)

(869 and 870.) ³⁴⁴Having suitably pounded Prapaundarîka¹¹⁹, liquorice, Śailêya³⁴⁵ and honey, tie *the whole* to a clean piece of reed ³¹³, (870) wet it frequently with water, and squeeze it out from time to time. This makes a capital lotion for *the relief of* violent pains in the eyes.

(XVI)

(871—874a.) ¹⁰Take root-bark of the two Vrihati⁶⁰, long pepper, ginger, and rock-salt, together with copper, and grind *the whole* into a paste with milk. (872) Having made it into a soft paste, smear it over a copper-vessel; and repeat this process of grinding into paste and smearing for seven nights and eight days. (873) Then apply it to the eyes as a collyrium for the purpose of relieving pains. It will thoroughly cure swellings, and bloodshotness. (874a) It will also remove lesions, *injuries to* the tunics, opacity, and cataract.

(XVII)

(874b—876a.) ¹⁰Take of rasot, and realgar, (875) and roots of Kuśa (*Poa cynosuroides*), and mix them with honey. This makes a remedy against defluxion and itching *of the eyes*. (876a) It also cures lesions, cataract and every kind of eye-disease.

(XVIII)

(876b and 877a)¹⁰

Twenty-Seventh Leaf: Obverse.

and sixteen, also liquorice and sugar make a suppository *useful* in any eye-disease of recent origin.

(XIX)

(877b and 878a.) ¹⁰Sonchal-salt, the two Haridrâ⁵², the three myrobalans¹⁵, and the three acrids²³, mixed with liquorice, make a most excellent remedy against cataract.

(XX)

(879.) ¹⁰Take Jâtî (*Jasminum grandiflorum*), conch-shell, realgar, liquorice, cuttle-fish bone, madder, black pepper, and antimony in equal parts, and add Prâchînika³⁴⁶ (*Stephania hernandifolia*) and long pepper (both) of an equal amount, and twice as much of good red ochre. This *which is* a remedy against all diseases is declared to be most beneficial as a suppository in the case of eye-diseases.

(XXI)

(880—882.) ¹⁰Prapaundarîka¹¹⁹, liquorice, sugar, realgar, conch-shell, seeds of long pepper, rasot, and antimony, (881) calx of brass, seeds of the clearing-nut, and rock-salt,

³⁴⁴ Compare the formulae in the Charaka VI, 24⁷⁹⁶ (lines 6-9 and 10-15); also Ashtânga Hridaya VI, 16⁴⁹⁴ (vv. 25-27).
³⁴⁵ See *ante*, Part I, p. 20, note 66.

³⁴⁶ *Prâchînika* is a synonym of *Pâtîhâ* (or *Stephania hernandifolia*); and this is expressly explained in a gloss, appended to the formula in our Manuscript.

cuttle-fish bone, black pepper, and honey:—*of all these take equal parts*, (882) and *having made pills*, place them, well covered, in a shady place to dry. They may be applied as a suppository to induce the growth of hair and to relieve those who suffer from lippitudo or any other eye-disease.

(XXII)

(883 and 884.) ¹⁰Take one part each of white antimony and cuttle-fish bone, also one part each of white pepper³⁴³ and long pepper, (884) and add one part of salt, equal to an aksha.⁹ This, in the form of a fine powder, makes a capital remedy against cataract, highly esteemed by Nimi³⁴⁷, and fit for people of respectability.

(XXIII)

(885.) ¹⁰Red ochre, sugar, and calx of brass, mixed with honey:—these make a lotion *useful* in eye-diseases.

(XXIV)

(886.) ¹⁰Three parts of chebulic myrobalan, and one part of ginger:—these, ground in water, make a suppository, beneficial in all diseases of the eye.

(XXV)

(887.) ³⁴⁸White pepper³⁴³, cuttle-fish bone, white sugar, conch-shell, powder of copper, seeds of the clearing-nut, iron-powder, roots of Garmudî (*Eleusine corocana*), cardamoms, and rock-salt; also Katukarôhinî (*Picrorrhiza Kurroa*), and seeds of long pepper:—with a paste of these, made with water, make a suppository. As a remedy against cataract, itching, and opacity, as well as against night-blindness, this is an auspicious suppository.

(XXVI)

(888—890.) ¹⁰Aloes, sandel, cinnamon-leaves, saffron, and Kêsara (*Messua ferrea*), Vrihatî (*Solanum indicum*), white pepper³⁴³, Bhadramusta (*Cyperus rotundus*), and blue lotus:—(889) equal parts of these should be ground in human milk, or in the absence of human milk, they may be ground in goat's milk. (890) *This preparation* cures itching, cataract, discharges, and bloodshotness; also night-blindness, and any other diseases of the eye.

³⁴⁷ Nimi is the name of an ancient physician, who is said to have been a Vaidêha, or a native of Vidêha, the modern Tirhût, see Charaka I, 16¹⁵⁵ (l. 7, 8). In the Ashtânga Hridaya VI, 13⁴⁸⁹ (v. 99) he is also mentioned as an eye-doctor, and called a *muni* or 'sage'; but in the Charaka I, 16¹⁵⁴ (l. 12) he is described as *râjâ vaidêha* or 'king of Vidêha,' and he is usually simply referred to as the *vidêha-pati* or *vidêh-âdhipati* or *vidêh-âdhipa* or 'lord of Vidêha'; see Suśruta VI, 1⁶⁵⁸ (v. 3a), Ashtânga Hridaya VI, 13⁴⁸⁵ (v. 27b), 22⁵¹³ (v. 83b), Vangasêna LVIII ⁵¹⁹ (v. 319b). As such, he seems to have been identified with Nimi, the founder of the dynasty of Mithilâ, about whom the myth is told that he died in consequence of a curse by the sage Vâśiṣṭha, and was then

placed by the gods, in spirit form, in the eyes of living creatures. See Dowson's Classical Dictionary of Hindu Mythology, *sub voce*. According to the Charaka I, 16¹⁵⁴, he was one of the conclave of nine physicians, who disputed about the question of the number and nature of the *rasa* or 'tastes.' He maintained the existence of seven tastes, viz., the six tastes usually recognised (see *infra*, note 362) with the addition of *kṣhâra* or 'caustic' (as distinguished from *lavana* or 'saline').

³⁴⁸ Compare the Charaka VI, 24⁷⁹⁶ (lines 4, 5), Vangasêna LXVIII⁷⁹² (v. 126) and Ashtânga Hridaya VI, 16⁴⁹⁴ (v. 24). Again Vangasêna LXVIII⁷⁹⁷ (v. 172), and Ashtânga Hridaya VI, 16⁴⁹⁵ (v. 51b, 52). Again Chakradatta LXII, 73⁶¹⁶.

THE BOWER MANUSCRIPT.

APPENDIX TO PART II.

THE HARĪTAKĪ-KALPA OF THE ĀŚVINA-SĀMHITĀ, EDITED FROM THE TWO MANUSCRIPTS
IN THE POSSESSION OF DR. P. CORDIER,—(SEE NOTE 439).

(A.)—SHORTER RECENSION, IN 27 VERSES.

Dharanyām nipatad-bindhuḥ Śakrasya pibatō 'mṛitāt | pavamānasya yôgēna vikīrṇaḥ saptadhā
bhavêt || 1 || Yatra yatr=ôpadamstās=tu¹ dēsēshv=amṛita-bindavaḥ | tatra tatra samutpannā sapta-bhêdā
harītakī || 2 || Vijayā Rôhinī c=aiva Prithu-nāmā² tath=Āmṛitā | Jīvantī, Trivṛitā tad-vad=Abhayā
c=ēti saptadhā || 3 || Alābu-grīvā Vijayā, chaturāṅgī tu Rôhinī | śushka-tvak=Prithunāmā cha, māmsalā
ch=Āmṛitā tathā || 4 || Suvarṇā-varṇā Jīvantī, pañchāṅgī Trivṛitā smṛitā | Abhayā kṛishṇa-varṇā syād=ity=
ētāḥ samprakīrtitāḥ || 5 || Vijayā vāta-rôgēshu, Rôhinī samnipâtikē | paittikē Prithunāmā cha, ślaishmikē
ch=Āmṛitā tathā || 6 || Arśo-vikārē Jīvantī, Trivṛitā vṛana-rôpanī | Abhayā sarva-rôgēshu prayôjyāḥ
syur=yathā-yatham || 7 || ³Vijayā Vindhya-dēsēshu, Kanyākubjēshu Rôhinī | Saurāshtrē Prithunāmā cha,
Gaṅgāyās=tv=Amṛitā tatē || 8 || Kāsmīra-dēsē Jīvantī, Trivṛitā Himavād-girau | Abhayā Vainya-dēsēshu
jātā ch=aiva Harītakī || 9 || Tvag-āsritam tu kaṭukam=amlam snāyv-āsritam viduḥ | Māms-āsritam kaśāyam
tu, tiktam vṛint-āsritam tathā || 10 || Majj-āsritam tu madhura=ēvam pañcha-rasāḥ sthitāḥ | haraṇāt=
sarva-rôgāṇām yaśō-yuktā harītakī || 11 || Pathyatvāt=sarva-bhûtānām pathyā, śivatayā śivā | yasmād=
vijayatē vyādhin=samagrān⁴ Vijayā tathā || 12 || Abhayam sarva-bhûtēbhyō bhavaty=āyus=cha śāśvatam |
yaśaḥ-śīlatayā tēshām⁵ tēn=aivam=Abhayā smṛitā || 13 || Tīra-jā vana-jās=⁶ ch=ēti pārvatīyā iti tridhā |
yath-ōttaram pathyatamā vijñēyās=tri-vidhās=tu sāḥ || 14 || Dvi-karsha-mātram karsham cha tad-ardham
cha bhavêd=yadi | uttamam madhyamam nīcham harītakī phalam smṛitam || 15 || Jantu-dashtām
jalē viddhām līnām paṅkē 'thavā jalē | antar-majja-vinirmuktām purāṇām rasa-varjitām || 16 || Ūsharē
cha sthitām bhinnām varjayêt=tām harītakīm || 17a || Kupitam pavanam guda-taila-yutā⁷, ghṛita-śarka-
rayā saha pittam=api | madhu-pippalibhiḥ kupitam tu kapham, śamayêch=chhāmayêch=chhāmayêd=Abhayā
|| 18 || [Unmī]lanī⁸ budhi-bal-ēndriyāṇām, sammīlanī pitta-kaph-ānilānām | samśôdhanī mūtra-śakṛin-
malānām, Harītakī pathyatamā narāṇām || 19 || Jīrṇē pathy=ājīrṇē 'pathyā jīrṇ-ājīrṇē pathy-āpathyā |
bhuktē pathy=ābhuktē 'pathyā bhukt-ābhuktē pathy-āpathyā || 20 || Grīshmē sāmā-gudām samāna-
lavanām mēgh-āvanaddh-āmbarē | sārddham śarkarayā | śarady=amalayā⁹ sunṭhyā tushār-āgamē || 21 ||
Pippalyā śīśirē vasanta-samayē kshaudrēṇa samyôjitām | rājan=prāpya harītakīm=iva gadā naśyantu tē
śatravaḥ || 22 || Śrīman=n=āyushmantam vitaram kamal-āsana-priyam cha Hariḥ | bhava-bhaya-vināśam=
īśas=tava dadyād=rôga-vijayam cha¹⁰ || 23 || Gurūṇām saptakam¹¹ dadyād=abhishiktē tu pañchakam¹¹ |
shatkam baddhē, trayam rājñāḥ pathyam¹² dadyād=bhishaktamāḥ || 24 || Trayam tri-dôsha-śamanam,
pañchakam¹¹ ch=ēndriya-pradam | saptakam¹¹ sapta-dhātva-artham=iti vyaktā¹³ harītakī || 25 || Harim
harītakīm ch=aiva gāyatrīm cha divē divē | mōksh-ārôgya-tapaḥ-kāmī chintayêd=bhakshayêj=japêt || 26 ||
Harītakī manushyāṇām māt=ēva hita-kāriṇī | kadāchit=kupyatē mātā n=ôdara-sthā harītakī || 27 ||

Translation.

[Verses 1-5.] Any drop of the nectar which Śakra (*i.e.*, Indra) was drinking, falling on the earth, was
by contact with the wind, transmuted in seven ways. (2.) Wherever, in any country, the drops of nectar
were caught up, there chebulic myrobalan grew up of seven kinds. (3.) Vijayā, Rôhinī, Prithunāmā,
Amṛitā, Jīvantī, Trivṛitā, and Abhayā : these are the seven kinds. (4.) Bottle-gourd-necked is Vijayā, four-

¹ MS. ôpadamstē tu. ² So MS. ; perhaps read Prithu-mānā. ³ MS. samagram.
⁴ Verses 8, 9 in Harīta-kalpa I, 10, 12. ⁵ MS. vana-jā. ⁶ MS. yutam.
⁷ MS. śīlatayām ēnām. ⁸ MS. sarad-vimalayā.
⁹ Or prajvalint, missing in MS.

¹⁰ Conjectural; the MS. reading is corrupt, triyam for priyam, and vijayā-rôgair=jayam cha for dadyād, etc.
¹¹ MS. saptamam, pañchamam, shashtam. ¹² MS. rājñāḥ pathyam. ¹³ MS. ity=uktā.

limbed is Rôhinî, dry-skinned is Prithunâmâ, and fleshy is Amṛitâ; (5.) gold-coloured is Jîvantî, five-limbed is Trivṛitâ, dark-coloured is Abhayâ: thus they are distinguished.

[Verses 6-7.] For diseases due to *disordered* air, Vijayâ; for those due to all three humours combined, Rôhinî; for those due to bile, Prithunâmâ; and for those due to phlegm, Amṛitâ; (7.) for pile-complaints, Jîvantî; for granulating wounds, Trivṛitâ; for all diseases Abhayâ: for these purposes respectively *the seven kinds* should be administered.

[Verses 8-9.] Vijayâ, in the Vindya ranges; Rôhinî, in the tracts of Kanauj; Prithunâmâ, in Saurâshṭra; and Amṛitâ, on the banks of the Ganges; (9.) Jîvantî, in the Kashmir country; Trivṛitâ, in the Himâlaya mountains; and Abhayâ, in the tracts along the Vêṇa river: in these, the chebulic myrobalan grows.

[Verses 10, 11.] Pungency resides in its bark (lit. skin), sourness in its fibres (lit. sinews), astringency in its pulp (lit. flesh), and bitterness in its buds; (11.) but sweetness in its marrow: it thus possesses five tastes. From the fact of its removing all diseases, it is famed as Harîtakî (or the Remover.)

[Verses 12, 13.] On account of its wholesomeness for all beings it is *called* Pathyâ (or the Wholesome); on account of its auspiciousness, Śivâ (or the Auspicious), and because it overcomes all diseases, it is Vijayâ (or the Overcomer). (13.) It is a *cause* of fearlessness to all beings, and of perpetual life, through its zeal for their glory: therefore it is called Abhayâ (or the Fearless).

[Verses 14-17a.] It grows in three places, on river banks, in forests, and on mountains: and in that order these three kinds should be considered most effective as a remedy. (15.) According as the fruit of chebulic myrobalan is given in a dose of two karsha, or one karsha, or half a karsha, it is said to be superior, or middling, or inferior. (16.) Chebulic myrobalan, which is bitten by an animal, or damaged in water, or rotting in mud or water, or wanting its inner marrow, or old, or devoid of juice, (17a.) or lying on saline soil and split, such should be discarded.

[Verses 18-23.] When joined with molasses and oil, chebulic myrobalan (*abhayâ*) relieves vitiated air-humour; and together with clarified butter and sugar, it relieves bile; but with honey and long pepper, it relieves vitiated phlegm. (19.) It opens up the intellect and the senses, it closes up *the excessive flow* of bile, phlegm and air; it clears out urine, fæces and (other) waste products: *all this* does chebulic myrobalan (*Harîtakî*) most effectually for men. (20.) When digested, it is remedial; when not digested, it is not remedial; when indifferently digested, it is indifferently remedial. When eaten, it is remedial; when not eaten, it is not remedial; when eaten indifferently, it is indifferently remedial. (21.) In the summer, if mixed with an equal quantity of molasses; in the season when the sky is overcast with clouds, with an equal quantity of salt; in the autumn, with half the quantity of sugar; on the arrival of cold, with pure dry ginger; (22.) in the early spring, with long pepper; in the later spring, with honey of the small bee;—Oh King! if chebulic myrobalan be thus taken, then thy diseases, just like thy enemies, will be destroyed. (23.) Oh Majesty! may Hari make thee more and more long-lived, and beloved by the Lotus-seated (Brahmâ); may the Lord grant thee freedom from fear of (mundane) existence, and victory over diseases.

[Verses 24, 25.] To spiritual masters seven-fold should be given of the remedial agent by a good physician; but to a consecrated person, five-fold; six-fold to a prisoner; to the King, three-fold. (25.) Three-fold of it relieves the three humours; five-fold imparts *strength* to the *five* senses; seven-fold is for the sake of the seven elements: thus chebulic myrobalan is distinguished.

[Verses 26 and 27.] Let him who desires salvation, health, and spiritual exercise, meditate on Hari, partake of chebulic myrobalan, and repeat the Gayatrî prayer. (27.) Chebulic myrobalan, like a mother, is the benefactress of men: and being like a mother it will never hurt them while it is in the bowels.

(B.)—LONGER RECENSION, IN 37 VERSES.

Sukh-ôpavishtam Brahmânam=Aśvinau vâkyam=uchatuh | kato Harîtakî jâtâ kati-yôniś=cha kîrtitâ || 1 || Rasâḥ kati samâkhyâtâḥ kati ch=ôparasâḥ smṛitâḥ | kati nâmâni ch=ôktâni kim cha tâsâm cha lakṣaṇam || 2 || Kâ katham cha prayôktavyâ kê cha varṇâ guṇâś=cha kê | kêna dravyêṇa saṁyuktâ rôgân=kân=kân=nigachchhati || 3 || Sa tat=prîṣṭam yathâ-prîṣṭam Bhagavan=vaktum=arhasi | Aśvinor=vachanam śrutvâ Brahmâ vachanam=abravît || 4 || Prapâta vindur=mêdinyâm Śakrasya pibatô 'mṛitam | tatô divyâ samutpannâ sapta-yônir=harîtakî || 5 || Vijayâ Rôhinî ch=aiva Pûtanâ ch=Âmṛitâ tathâ | Chêtakî tv=Abhayâ ch=aiva Jîvantî ch=aiva jâtayah || 6 || Alâbu-vṛittâ Vijayâ ch=âvyaktâ ch=aiva Rôhinî || Pûtanâ=âsthimayî sūkshmâ sthûla-mâmsâ tath=Âmṛitâ || 7 || Âśrîtuś (*sic*)=Chêtakî jñeyâ pañchâśrâ ch=Âbhayâ

matā | suvarṇā-varṇā Jīvantī saptānām=api lakṣaṇam || 8 || Sarva-proyôgē Vijayā Rôhinī vṛṇa-rôpiṇī | lēp-
 ārtham Pūtanā vidyād=ek-ārtham ch=Āmṛitām viduḥ || 9 || Chêtakī sarva-rôgēshu nētra-rôgē 'bhayā tatbhā
 | Jīvantī chūrṇa-yôgēshu yath-ārham¹=upakalpayēt || 10 || Parīkṣha[yēt]²=tatô dhīmān=varṇa-svaguṇa-
 nāmabhiḥ | kṣipt=āmbhasi nimajjēd=yā guṇa-kṛit=sā prāsasyatē || 11 || Chêtakī dvi-vidhā sā tu kṛishṇā
 śuklā tu varṇataḥ | śhaḍ-āṅgul-āyatā kṛishṇā śuklā ch=aik-āṅgul³-ōnmitā || 12 || Kāchid ākhāda-mātre tu
 kāchid=gandhēna bhēdayēt | kāchit=sparśēna dashṭv=ānyā s=aiva ch=ōktā chatur-vidhā || 13 || Chêtakīm pā-
 dapa-chhāyām=upasarpanṭi yē narāḥ | bhidyantē tat-kṣaṇād=ēva paśu-pakshi-mṛigās=tathā || 14 || Chêtakī
 tu dhṛitā hastē y[āvat=ti]²shṭhati dēhinaḥ | tāvad=vēgēna bhidyatē pra[sahya]² n=ātra samśayaḥ || 15 ||
 [Nṛipānām]² sukumārānām kṛishṇānām bhēshaja-dvishām | Chêtakī paramā śastā hit-ā[rthinī vi]²rēchanē
 || 16 || Saptānām=api jātīnām pradhānā Vijayā smṛitā | sukhōpayôgā sulabhā śasyatē sarva-karmāsu || 17 ||
 Harītakya rasān=pañcha⁴ vidyāl=lavaṇa-varjītān⁴ | majj-āsritam tu madhura=āmlam snāyav-āsritam⁴
 viduḥ || 18 || Tvag-āsritam tu kaṭukam tiktam vṛint-āsritam tataḥ | asthy-āsritam⁴ kashāyam tu rasam=āhur=
 manishipah || 19 || Kapham kaṭuka-prāyatvād=amlatvān=mārutam jayēt | pitta-ghnī svādu-tiktatvād=alp-
 āgnim=ēva⁵ pāchanī || 20 || Vātikān=paittikān=yasmāch=chhlēshmikān=sāmīpātikān | prasahya harati
 vyādhīn=tasmāt=prōktā harītakī || 21 || Sadā hitā manushasya māt=ēva hita-kāriṇī | māt=āpi vikriyām [sau]²
 ti n=ōdara-sthā harītakī || 22 || Harītakī daridrānām sukh-ōpāyam rasāyanam | pathyatvē pravara prōktā
 sarv-āmaya-vināśinī || 23 || Trishṇāyām kaṇṭha-sōshē cha hanu-stambhē, gala-grahē | nava-jvarē tathā kshīṇē
 garbhinyām cha na śasyatē || 24 || Harītakī bhakshyamāṇā⁶ nāgarēna guḍēna vā | saindhavēna hitā [v=ā]²
 pi sātatyēn=āgni-dīpanī || 25 || Harītakī sama-guḍa-viśvabhēshaja-samyutā | nihanty=āmāśayē rōgān=
 vajrēn=Ēndrō yath=āsuraṇ || 26 || Harītakīm sadā [khā]²dēt=sarat-kālē sa-śarkarām⁶ | hēmnī sa-śringavē-
 rām⁶ cha śisirē pippalī-yutām || 27 || Vasantē madhunā mīsrām grīshmē cha sa-guḍām tathā | varshāsu
 saindhav-ōpētām piṣṭām⁷ kalkam=athāpi vā || 28 || Unmīlinī buddhi-bal-ēndriyānām nimīlinī pitta-
 kaph-ānilānām | viśramsinī mūtra-śakṛin-malānām harītakī syāt=saha bhōjanēna || 29 || Harītakī sarpir=
 vipāchayitṛī⁸ samaśnatas=tat=pibatō 'nu sarpiḥ | Vāt-ātmakā⁸=ch=āsya na santi rōgāḥ syāt=prishṭha-jagh-
 ōru-kaṭi-balam cha || 30 || Ēraṇḍa-tailēna vipāchya pathyā⁹ syād=ēvad=ēv=ānupibēch=cha | sa-śūla-
 viṣṭambha-kṛitān=[vikārān]² sarvāñ=jayēt=pitta-kaph-ānil-ōtthān || 31 || Mūtrē sthitā¹⁰ sapta-dinam
 mahishyā¹⁰ pañch=ābhayā mūtra-palāni pañcha | kshīrēna yā¹⁰ sapta-dināni khādēt kshīrōdan-āśī paratas=
 tath=ānyān || 32 || Ēsha tri-saptād=aparāḥ prayôgō vāt-ōdaram tīvram=ap=īha hanyāt | plīhānam=ānāham=
 urōgraham cha sa-pāṇḍu-rōgam cha garam kṛimīm=ś=cha || 33 || Harītakī dhānya-tushōda-siddhā sa-pippalī-
 saindhava-hiṅgu-chūrṇā | s-ōdgāra dhūmam bhṛīsam=apy=ajīrṇam nihanti sadyō janayēt=kshudhām cha
 || 34 || Harītakīm vā madhun=āvalihyād¹¹ =āmātisārē prathamam pravṛittē | pravāhayēt=sā tv=avaśisṭha-
 dōshān=samśōdhayēt=kōshṭham=asēshataś=cha || 35 || Dvē pūrvam=adyād=āsan-ādītō¹² dvē dvē ch=āpi bhuktva
 tu yathā-svayam cha | asya prayôgād=abhay-āshtakasya tri-sapta-rātrēna punar=yuvā syāt || 36 || Mēdhā
 smṛitīḥ śaktir=atīva-kāntīḥ śrīmad-vapur=nityam=anāmayatvam | dipt-āgnitā|drishṭi-balam cha kuryāt sarvē
 cha rōgāḥ prāsamaṁ prayānti || 37 ||

Translation.

[Verse 1.] While Brahmā was sitting at ease, the Āsvin pair thus addressed him, "Whence has the chebulic myrobalan come, and of how many kinds is it reputed to be? (2.) How many tastes are ascribed to it, and how many subtastes is it believed to have? By how many names is it called, and what are the characters of its several kinds? (3.) How is each of them applied, and what are their colours and qualities? What diseases do they severally cure, and in combination with what (other) drugs? It is your Honour, indeed, that is able to answer these questions in their proper order." Hearing the address of the Āsvin pair, Brahmā replied as follows:

[Verses 5-11.] "A drop fell on the earth while Śakra (i.e. Indra) was drinking nectar: thence sprang up the heavenly chebulic myrobalan in its seven kinds, viz., (6.) Vijayā and Rôhinī, also Pūtanā and Amṛitā; Chêtakī furthermore, also Abhayā and Jīvantī: these are its (seven) kinds. (7.) Vijayā is round like a bottle-gourd; Rôhinī is not particularly distinguished; Pūtanā has a stone and is very small; and Amṛitā has a large pulp; (8.) Chêtakī may be known by its stone, and Abhayā by its five corners; Jīvantī has a golden colour: these are the distinguishing marks of the seven kinds. (9.) Vijayā may be used for all purposes, Rôhinī for granulating wounds, Pūtanā for plasters, Amṛita for one peculiar purpose. (10.) Chêtakī is useful in all kinds of disease, Abhayā in diseases of the eye, Jīvantī in formulæ for powders: each

¹ MS. tath-ārham. ² Missing in MS. ³ MS. aikōgun.

⁴ MS. rasānām cha, varjītām, madhura, sādhu-āsritam, asthy-āsritam. ⁵ MS. ālpadāmiva.

⁶ MS. bhakshyamāṇā, and cha śarkarām | hēmantē śringa-
varam.

⁷ MS. plutām. ⁸ MS. vipāchayitvā.

¹⁰ MS. sthitā, mahishyā, yā.

¹¹ MS. harītakī vā madhu=āvalihyād.

⁹ MS. pathyām.

¹² MS. āsanādītō.

may be used for what it is suitable. (11.) Therefore, a wise physician will examine them according to their colour, quality, and name. A *chebulic myrobalan*, which sinks when thrown into water, is accounted good.

[Verses 12-17.] The Chêtakî is of two kinds, according as it is of dark or bright colour: the dark kind has a length of six *angula*; the bright kind measures one *angula*, (13.) Some can be distinguished in eating; some, in smelling; some, in touching; others, in biting: this fourfold division is also one which is given. (14.) Any man that approaches Chêtakî lying in the shade of a tree, from that very moment his bowels become loosed; so it is also with cattle, birds, and wild animals. (15.) But having taken up Chêtakî, so long as it remains in his hand, so long he is affected by motions of the bowels. (16.) For princes, and children, for those who are feeble, and who are averse to medicines, Chêtakî is declared to be most particularly beneficial as a purgative. (17.) Among the seven kinds, Vijayâ is considered to be foremost: it is reputed to be comfortable to use, and easy to obtain, in the case of all medical applications.

[Verses 18-24.] Chebulic myrobalan is known to possess five tastes, only the saline being absent. In its marrow resides sweetness; in its fibres (lit. sinews), sourness; (19.) in its bark (lit. skin), pungency; and in its bud-stalks, bitterness; but in its wood (lit. bones), astringency: these tastes the discerning ascribe to it. (20.) Phlegm it subdues by the abundance of its pungency; air, by its sourness; bile, by its sweetness and bitterness. (21.) Because it effectually removes diseases due to air, bile, phlegm, and the three humours combined, therefore it is called Harîtakî (or the Remover). (22.) It is always salutary and beneficial to men like a mother: also, like a mother, it never produces any trouble when it is taken into the bowels. (23.) Chebulic myrobalan is a tonic medicine easily procurable by the poor; and it is declared to be excellent as a remedy, and to be a cure for all diseases. (24.) But in the case of morbid thirst, dryness of the throat, lockjaw, stricture of the throat, recent fever, consumption, and pregnancy it is not recommended to be taken.

[Verses 25-37.] Chebulic myrobalan, when eaten with dry ginger, or with molasses, or also with rocksalt, speedily promotes digestion. (26.) Chebulic myrobalan, combined with an equal quantity of molasses and ginger, kills diseases in the upper region of the abdomen just as Indra does the Asuras. (27.) Chebulic myrobalan should always be eaten in the autumn with sugar; in the winter, with ginger; and in the early spring, with long pepper; (28.) in the later spring, with honey; in the summer, with molasses; and in the rains, with rocksalt: or it may be powdered and made into a paste. (29.) Taken with one's meal, chebulic myrobalan serves to promote one's intelligence, strength, and sensibility, to regulate the flow of the bile, phlegm and air-humours, and the secretion of urine, fæces, and other waste products. (30.) Chebulic myrobalan promotes the digestion of one who eats clarified butter with it, or who drinks clarified butter after it: no diseases due to disorders of the air-humour affect him, and he remains strong in his back, legs, thighs, and hips. (31.) Taken together with castor-oil it is a remedy acting on the digestion: that oil should also be drunk after it: it thus cures all troubles caused by colic and constipation, due to disorders of bile, phlegm, and air. (32.) Five chebulic myrobalans (*abhayâ*), which have lain for seven days in five pala of the urine of a buffalo, if any one eats these with milk for seven days, dieting on rice milk, and so on for other periods (?): (33.) then this excellent course of treatment will, after three times seven days, cure even severe abdominal swellings due to disordered air, also spleen, constipation, lumbago, jaundice, poisoning by rotten food, and worms.¹³ (34.) Chebulic myrobalan (*harîtakî*), prepared with sour gruel of rice, and with powders of long pepper, rocksalt, and asafoetida, quickly cures severe indigestion accompanied by eructed gas¹⁴, and engenders hunger. (35.) One should take chebulic myrobalan, in the form of a linctus made with honey, at the first appearance of acute diarrhoea: it will carry off the surplus humours, and thoroughly clear out the bowels. (36.) Two chebulic myrobalans one should eat before one's meal, two while engaged in it, and two after having enjoyed it, just as it suits one individually. In the same way, by the use of eight chebulic myrobalans (*abhayâ*) for a period of thrice seven nights (i.e. three weeks) one may again grow young. (37.) Chebulic myrobalan promotes intelligence, memory, vigour, great beauty, figure, and permanent health, also good digestion and power of sight: and all diseases reach a favourable end.

¹³ Translation of vv. 33 and 34 in part conjectural.

¹⁴ *Udgâra-dhûma* of the text appears to be the same as *udgâra-nivâsa* in AH., III, 14, v. 54.